

# Manufacturers Record

## Exponent of America



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Baltimore, Md.,  
FEBRUARY 6, 1919

### WHITHER ARE WE BEING LED?

Facing the most momentous crisis in the life of America, if not indeed of all civilization, it is the solemn duty of every man and woman to give the profoundest study, regardless of all preconceived notions, to the tremendously dangerous movements to which our country is being practically committed, so far as this can be done at the Peace Conference.

Shall America pledge its power, its honor and the lives of its men to the task of settling all of the internal or external wars of all the nations, great and small, of the world?

If so, how shall we raise the armies needed?

Surely American men, however altruistic they may be, are not ready to offer their lives upon every battlefield of earth, nor are they willing to be drafted for such a purpose. Nor can we believe that American mothers and wives are ready to send forth American sons to become a police force to suppress every marauding band in Africa, or the Balkans, or Asia, that may engage in warfare upon its neighbor.

We cannot undertake to control all the forces of all the world unless we are ready to definitely commit ourselves to the maintenance of law and order in every part of the world, regardless of the cost in men and money.

To pledge America to a League of Nations in such a way as this, and to try to force other nations to follow us into it, would be to subvert our Government and to change it from a democracy to an autocracy of the most dangerous kind, with its utmost strength guaranteed to help rule the whole world.

The people of America are treading on ground beneath which there may be fires more intense and more powerful for evil than the raging heat of Vesuvius. If as a nation we are to make this mighty leap into an abyss, the depth of which no human mind can see, we should do so only after a most thorough understanding of what we are doing. As yet this country is wholly in the dark as to the extent to which it is being pledged to a League of Nations, nor do we at all know the magnitude of the dangers into which we are being led as blindly as sheep.

All that we can possibly know under present conditions is that we are being told to blindly follow without question into the mightiest revolutionizing scheme of all the ages, contrary to the whole history of our nation.

Are we ready to shut our eyes, to stop our ears, to close our power to think for ourselves, and step out into the darkness of an unknown abyss?

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**BAR IRON:** Refined Bar Iron, Double Refined, Chain, Staybolt, Special Staybolt and Engine Bolt Iron.

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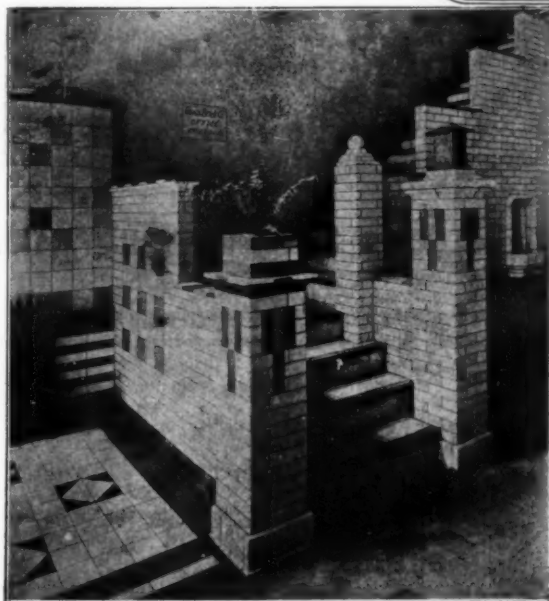
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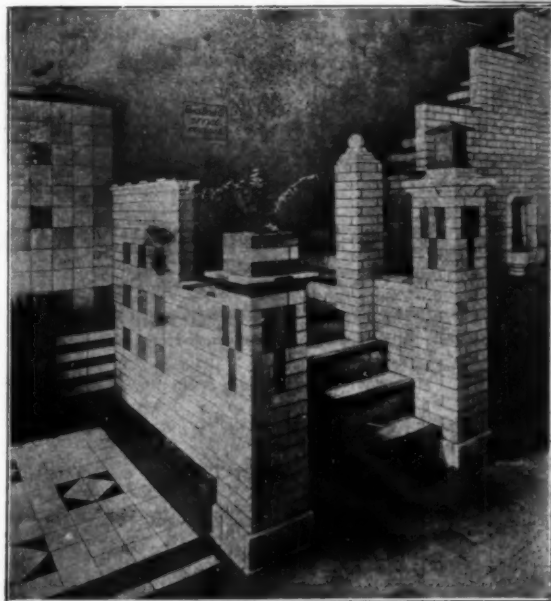
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# Manufacturers Record

Devoted to the Upbuilding of the Nation Through the Development  
of the South and Southwest as the Nation's Greatest Material Asset

Trade-Name Registered in the U. S. Patent Office

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## CONSTRUCTION ACTIVITY DEVELOPING THROUGHOUT SOUTH AND SOUTHWEST.

NO one can turn to the Construction Department of this paper and read the items which tell of road work, of street improvements, of municipal buildings, of great manufacturing and mining enterprises without being impressed with the rapidity with which the South is adjusting itself to peace conditions.

The revival in road-building work is as rapid as could have been anticipated. Indeed, it is almost as rapid as could have been asked, considering the difficulties of taking up work which for the last year or two the Government had practically forbidden.

All the way from Maryland down to Texas and out into Oklahoma there is a quickening not only of road building work, but of the spirit which makes for vastly greater road building activities in the future. The revival of house building, the renewed activity in the construction of municipal buildings and churches, and in the betterment of sewerage and water systems, all speak well for what the near future will develop.

The suddenness of the armistice brought about a change which necessarily halted war activities and made it impossible to take up immediately the activities of peace days. No one should have been surprised at this interregnum between war activities and the revival of peace work. The South, however, is apparently catching its gait, and leading off, partly by reason of the fact that it can do road work during the early spring to better advantage than other sections, and it is now planning aggressively for an immense amount of road building and road repairing.

The South has awakened to the great task of road building, and it appreciates now as it never could have done before the necessity for good roads.

We shall see in this section a full utilization of the capital accumulated during the last two years put into substantial development activities, into road building, into manufacturing enterprises, into the opening up of mineral and oil interests, and in the building of dwellings in the cities as well as on the farms. The South is on the high road to great activity.

## ARE THESE MEN VISIONARY, UNPATRIOTIC CRANKS?

JUDGE E. H. GARY of the United States Steel Corporation, Mr. Frank H. Vanderlip of the National City Bank of New York and Thos. A. Edison are usually classed as level-headed men who are fully competent to express intelligent opinions upon questions pertaining to the financial and industrial welfare of the country. Nobody has ever called them cranks or visionary and unbalanced business leaders. Indeed, the whole country gives instant praise for their sound judgment, their broad vision and their profound concern for the welfare of the nation. People everywhere recognize their business abilities and their power for leadership in the things that make for national progress and prosperity.

When Judge Gary and Vanderlip and Edison and a thousand other men of similar standing in the business world unite in a commendation of a business proposition, surely he is a bold man who takes issue with their combined business judgment or else he is a very blind man who refuses to see the truth enunciated by them.

Two or more years ago, when they were not moved by the excitement of war, men like Judge Gary, Vanderlip, Edison and a thousand others of similar standing signed a statement of their views, not in any spirit of excitement, but calmly each for himself and by himself. Surely such an aggregation of leadership in American finance and science was never before affixed to any single paper. That paper was a petition to Congress. It was as follows:

"In view of the scientifically proved unfavorable effects of the use of alcoholic beverages even in small quantities;

"And in view, therefore, of the colossal, physical, mental, moral, economic, social and racial evils which the manufacture and sale of alcoholic liquor entail;

"And in view of the inadequateness of all methods hitherto employed to check or regulate these evils;

"And in view of the great and rapid growth of public knowledge and sentiment on this subject as shown by anti-alcohol agitation and legislation through most of our national area:

The undersigned believe the time has come for the Federal Government to take steps looking to the prohibition in the United States of the manufacture, sale, import, export and transport of alcoholic liquors."

(Signatures—a thousand names.)

\*With the understood exceptions for medical, sacramental and industrial purposes.

Despite such an unequalled array of names of one thousand men who lead in the nation's material and scientific affairs, an effort is being made to create the impression that a Constitutional enactment doing exactly what the petition signed by these men demanded is the work of narrow-minded, bigoted souls who know nothing about business and care not for the loss of revenue from the liquor traffic. The South is denounced as though it was wholly responsible for national prohibition; the men who have led in the fight are assailed as narrow-minded visionaries who are sending the nation straight to ruin, financially, Constitutionally and in every other way. And yet Judge Gary, Vanderlip, Edison and a

thousand more of the nation's greatest business leaders, physicians and scientists called upon Congress to do exactly what has now been done. Are Gary, Vanderlip, Edison and their associates visionary cranks without business sense or judgment?

### A CHANGE.

ON January 27, 1915, President Wilson sent to Kaiser Wilhelm, the arch fiend of history, a telegram of congratulations, and the Secretary of State, though fully cognizant of the atrocious crimes Germany was committing in America, called upon the German Ambassador. On January 27, 1919, President Wilson and Secretary Lansing were in Europe discussing with the representatives of other countries what punishment should be meted out to the nation of criminals whose Kaiser had cowardly sought safety in Holland.

What a hollow mockery of diplomacy was the cable of congratulations from the President of America to the Emperor of Germany and the call of our Secretary of State upon the German Ambassador, the murdering representative of a nation of murderers!

May the world be saved from any such hollow diplomacy at the peace table, and may the open diplomacy so called be a diplomacy of square, straightout, unequivocal denunciation of crime, that no diplomatic courtesy may ever again place this nation in a position of official congratulations of birthdays to men who were known to be the blackest criminals in human history.

### SHOULD PROHIBIT CHLORINE MANUFACTURE IN GERMANY.

"IF anyone dares to touch the west bank of the Rhine or Danzig (Baltic port of Prussian Poland), Germany will rise as one man and make war again, even if we had no weapon left except poison gas."

Thus spoke Theodore Wolff, editor of the Berlin Tageblatt, on December 21, 1918, in an interview in the Politiken of Copenhagen. Strange words from a citizen of a defeated country which has accepted the most stringent armistice terms known in military history! Those terms included surrender of battleships, submarines, aeroplanes, artillery, railway cars and locomotives, indeed, all kinds of instruments of war except that most fearful of modern developments, poison gas, which the enemy introduced. In the terms of neither the original armistice nor of the several extensions has there been noted any requirement of cessation of production of poison gas.

The means of controlling its production are very simple. Prohibit the manufacture of chlorine in Germany. This would prove immediately effective, for chlorine enters into all of the substances used on a large scale in this method of fighting—mustard gas, phosgene, chloripicin, etc.

Doubtless further extensions of the armistice will be required. If so, chlorine manufacture in Germany should receive the serious consideration of those formulating the terms of the extension. This is the tactical aspect of chlorine manufacture.

There is, however, an economic aspect which is full worthy of consideration by the Peace Commissioners. Through the necessities of poison gas warfare, world production of chlorine has been largely over-stimulated. In the period of economic readjustment, who is to scrap apparatus and machinery for chlorine production—the Germans who inaugurated gas warfare or the American manufacturer who responded to the call of his Government for the maximum output of chlorine to meet the German menace.—*Journal of Industrial and Engineering Chemistry*.

Why should anyone think Wolff's words, as voicing Germany's thoughts, strange? Germany has not been whipped. It has merely signed an armistice. It has not surrendered; its troops parade through Berlin and are hailed as conquering heroes. At least this is the view of German people. But let's stop the chlorine production in Germany. That is a wise suggestion.

### "PENNY WISE AND POUND FOOLISH" IN RAILROAD WORK.

IGNORANCE is not always bliss. Note the following quotations from an article contributed to the *Journal of the United States Artillery* by Dr. William Le Roy Brown, superintendent of the Confederate Armories in Richmond, Va., during the Civil War, and later the successful pioneer in technical education in the South:

"Steel guns were not made. We had no facilities for making steel."

Yet the troops for which these guns were needed were composed in part of men from the Birmingham, Ala., district, where a great steel industry now flourishes!

"Near the close of the war the supply of mercury became exhausted. Here was a most serious difficulty. We had not and could not obtain the mercury, an essential material with which to manufacture fulminate of mercury, and without caps the army could not fight, and must be disbanded. This was an extremely serious situation, and no mercury could be obtained in the limits of the Confederacy."

And the most beautiful specimen of cinnabar we have ever seen came from a Texas mine!

"The Confederacy had neither lead nor sulphur to spare."

Though the sulphur of Louisiana and Texas has been the sole reliance of the United States in a war of such colossal requirements as that just ended!

The agricultural South of Civil War days is now becoming a manufacturing section. In the development of latter-day knowledge of the natural resources of the Southern States the railroads have played a conspicuous part. While much of the industrial development by these organizations was for a period logically confined to immigration and agriculture, the trend had changed in recent years when through the stimulation of the National Exposition of Chemical Industries a new era was about to dawn. Railroads throughout the South were seeking chemists, not for routine testing of every-day supplies, but for the preparation of thorough surveys of natural resources which, when viewed through the chemist's eyes, lead to the establishment of new industries whose output of manufactured products would add to the nation's wealth and security.

Foundations of these surveys were being laid on broad lines, well-equipped laboratories were in process of establishment, and deeper grew the conviction that the next great step in development was well under way, when—bang! came the order from the Railroad Administration to stop all such activities. Protests from the press fell on deaf ears; requests for continuance from a group of 20 United States Senators were denied.

What was the result? Laboratories were closed, the technical staffs sought positions elsewhere, and it is feared that in some cases, at least, valuable records of work partly accomplished have been lost. The new Director of Railways has just announced that he will continue the policies of his predecessor.

The dark days are on us still. Well, at any rate, the people of the country seem to be pretty clearly convinced that the railroads shall soon return to private ownership and management. The darkness will not be eternal.—*Journal of Industrial and Engineering Chemistry*.

A fair statement by the eminent chemist, Dr. Herty, who edits the *Journal*. The policy pursued by the Railroad Administration in killing the industrial departments of the railroads was narrow and shortsighted in the extreme.

We are hardly surprised at the report that Mr. Hines will continue the same policy, for many believe that he was partly responsible for its inauguration by Mr. McAdoo. But whether that be true or not, its continuance by him would be even more culpable than its inauguration. There might have been some imaginary excuse for a man who would not look beyond the immediate present, but no man of broad vision or real constructive ability would ever have made such a blunder, much less would a man of that type continue it. If Mr. Hines was father of that policy or if he continues it he thereby proves himself not big enough for the job. Mr. McAdoo's failure was in his failing to understand that no man on earth was big enough to run the finances of the United States and manage the railroads at the same time.

It behooves the South and Southwest to begin and force an aggressive campaign against the narrow policy which has cut out the superb work the railroads were doing for their development.

## With an American Output of About 60,000 Tons of Potash the Stock Goes a Begging, Though We Formerly Consumed About 250,000 Tons a Year of German Potash. Why?

THE normal consumption of potash in the United States should be about 300,000 tons as measured by pre-war requirements, but the total production in America is on a basis of about 60,000 tons per year, and yet this is being piled up without finding buyers.

Based on the pre-war consumption, there has been a shortage of about 1,000,000 tons in the amount of potash used by our farmers. Notwithstanding this fact, the limited American output of about 60,000 tons goes a begging while many farmers think that potash is available. The German propaganda made the world believe that potash was absolutely essential, and the fertilizer manufacturers sought to meet the demand for potash created by the German kali and potash propaganda, and annually used 250,000 tons or more. But now a supply hardly more than one-fourth to one-fifth of the actual amount then used has overstocked the market.

What is the trouble? Something has gone wrong or else we were before 1914 using several times as much potash as we needed. The consumers of potash insist that they still need it, and need it badly.

A dispatch to the New York Herald from Omaha on this subject says:

"A government investigation of the production and importation of potash is wanted by the Nebraska potash producers. They believe German influence is being used to prevent the development of the American potash fields that Germany may control the potash supply of the world as she did before the European war.

"The Nebraska field is only two years old, and is not yet developed, but several small lakes out in the 'sand hill' country are producing 1,000,000 pounds of potash every day, and since the planting season of last year closed, have accumulated a supply of 140,000,000 pounds.

"Potash is the most necessary of all fertilizers. The potato growers of Maine, the tobacco growers of Kentucky and Virginia, the cotton growers of the Southern States, and the plain farmers of the entire East and South demand potash for the production of their crops. For the last four years, or since the importation of potash from Germany was cut off, farms in those sections have been literally starved for potash, scientific agriculturists say.

"Just as soon as the armistice was signed the American potash concerns began feeling a strong pressure from a subtle source. All sorts of rumors were spread concerning their output. In some sections of the country the report was circulated that all American potash was impregnated with borax and that its use would kill vegetation. The report that all American potash plants had been closed down and would manufacture no more potash was circulated in the South Atlantic States. Reports of exorbitant profits, by which the Western potash producers were making millions of dollars on investments of thousands, were spread.

"Along with the false reports concerning the American producers went subtle praises of the German article. Even after the National War Trade Board had announced that under the 'Trading with the Enemy' law German potash could not be imported into the United States until after the peace pact had been signed and the war was officially over, reports were spread among the farmers that boatload after boatload of the German product would be brought to America immediately.

"Other potash producers in the country are as vitally interested in the matter as are the Nebraska producers. While this State produces far more than all other American sources combined, yet California, with its kelp beds, certain cement mills in other States and many sugar factories in the South are each contributing its quota toward rendering America independent of Germany in respect to the production of potash.

"The importance of the part potash plays in American agriculture is shown by a recent Government expert, who estimated that the cotton raisers of North and South Carolina, Georgia and Alabama will lose \$233,975,000 annually unless they use the needed potash on which to nourish the cotton plant, and which will cost only a few million dollars.

"The source of the Nebraska potash has been a puzzle to scientists. Out in the 'sand hills' are about 600 small lakes of brackish water. All are impregnated with potash, some to a greater

extent than others. Scientists were puzzled to know how the potash got into the surrounding ground. They simply know that all the surrounding sand contains the potash, which leaches into the lakes during rains, and that the potash brine is always in the making. It has been recently discovered that the potash is in the sand and is inexhaustible in quantity. The origin is supposed to be alunitic or other insoluble shale or rock formations, which time and elements have made water soluble.

"During 1918 the output of the Nebraska lakes just about doubled in amount, and 1919 will see a still further increase, say the potash producers. Several new plants are under construction and will soon be turning out large amounts."

And the unanswered question still is, Why cannot the country absorb 60,000 tons of potash a year after four years of shortage in use to the extent of about 1,000,000 tons and in the light of an annual pre-war consumption of about 250,000 tons?

Why? Echo answers, Why?

If consumers want potash they can get it if they demand it, for it is piled up in Nebraska and elsewhere in America beyond the demand of fertilizer companies.

In connection with the anomalous and puzzling potash situation in this country there comes a most remarkable piece of information from Germany in the form of an Associated Press dispatch from Berlin, which, as printed in the Baltimore Sun of February 2, is as follows:

### TO GIVE POTASH FOR FOOD

German Syndicate Head Says 60,000 Tons Will Be Sent U. S.

[By the Associated Press.]

Berlin, Jan. 30.—Herr Schneddekopf, director-general of the Potash Syndicate, and formerly controlling the syndicate's interests in America, told the correspondent today that, as a condition of the armistice between Germany and the Allies, the former was likely to make a first shipment of 60,000 tons of muriate of potash soon. This potash would be sent to America, he said, in exchange for foodstuffs. He added: "We are anxious to resume former relations with the United States and hope, in time, to reach our former standard of production."

A serious decrease in potash production, owing to the coal shortage and labor troubles, it is asserted by farmers, gravely, will jeopardize early crops, especially potatoes.

Amazing!

What condition of the armistice gave Herr Schneddekopf, formerly in control of the German Potash Syndicate's interests in America, reason for the expectation that Germany would soon ship potash to this country? Why should the Associated Press quote this man as being "anxious to resume former relations with the United States" and as hoping in time to reach former production standards? The Associated Press is not given to the exploitation of mere fancies, and must have been impressed with the conviction that Herr Schneddekopf spoke with authority, with responsibility for his utterances.

Who is encouraging Germany to hope that its former monopoly in potash is soon to be restored in this country?

It is notorious that German influence is being used unscrupulously and without stint to prevent the development of the American potash industry. Are we to understand that Germany believes it is succeeding in this nefarious undertaking?

It has been completely demonstrated that American sources of potash supply and American methods of recovering these

supplies can meet all American potash demands if the potash producers of America are protected against Germany's characteristic and well-known trade methods.

Congress has all this before it. Will it give Germany a whip hand in the peace conference by restoring its former potash monopoly? Will it crush the American potash industry that the Government encouraged, or will it keep faith with these producers and at the same time free America for all time from Germany's dangerous domination in the matter of potash supplies?

### WILD STATEMENTS ABOUT COTTON DO HARM.

**I**F the Department of Agriculture of Texas cannot find any better occupation for its employes than to permit its cotton specialist, Mr. W. B. Yeary, to send out broadcast to the newspapers a discussion of the cotton situation based mainly on misrepresentation in regard to England and presenting a demand for permitting Germany and its Allies to buy cotton at present, even though the war has not actually ended, it would far better go out of existence.

That the cotton growers of the South should have a good price for cotton, and that they have nobody but themselves to blame if they do not withhold their cotton from the market until the world's demand absorbs it at a good price, is unquestionably true; but the persistent efforts of some people, like Mr. Yeary, to thoroughly misrepresent the situation and attack England, and while doing so demand the right to ship cotton to Germany, is a sad reflection upon the intelligence of some men holding official positions in the South.

Entirely disregarding the actual facts in regard to a world shortage of shipping which necessarily forced freight rates to abnormal figures, which fortunately has now been changed by recent reductions in rates, Mr. Yeary uses the high rates prevailing during the war as a basis of an attack upon England as though that was another trick of England's to beat down the price of cotton, when, as a matter of fact, England was struggling to save itself and save America from destruction by the worst barbarism which the world has ever known.

It is a lamentable pity that the legitimate discussion of cotton interests of the South must be handicapped by the wild statements of wild men in public life.

### HOW GERMANS PROSTITUTED SCIENCE.

**S**IR ROBERT HADFIELD, in his presidential address to the Faraday Society at Burlington House last night, said that the war had been largely one of the metallurgist, the engineer and the chemist. To the enemy scientists and technical men had been left the ignoble role of prostituting knowledge to the basest of uses. No matter how clever might have been their inhuman ideas with regard to poison gas, petrol flame throwers, and so on, the enemy's men of science in time to come would look back and find everything to be ashamed of and nothing of which they could be proud.

On the other hand, the scientific and technical men on the Allies' side had not only clean hands, but clean minds. While it had been necessary in self-defense for us to meet and counter-attack the many horrible devices of the enemy, there was not a man in the whole of the British Empire who would have introduced one of these terrible devices of the enemy.

Huns of all classes were equally to blame for this war. Of what use, therefore, was it to talk about a League of Nations at this hour of the day? It would be a League of Fools if it included Germany after her unparalleled atrocities, inhumanity and bestiality. To admit the Hun to any Council of Nations now would be like inviting a burglar or murderer, who had been caught in the act, to join the council of a Y. M. C. A.—London Times.

Sir Robert falls short of the fact. To permit Germany to become a member of a league of nations would be like a man inviting to become his associate, his equal and his partner, the man who had outraged his daughter, murdered his wife, stolen his property and kicked him out of his own house.

### DID WE MAKE A MISTAKE IN NOT GOING ON TO BERLIN?

**I**F anyone in this country has gained the erroneous impression that the German people have any idea whatever that they have really been defeated, they need only to have a chance to read some of the German papers in order to see how little Germany knows about defeat and how little thought there is in Germany of any repentance. Recent illustrations tell in pictures what the MANUFACTURERS RECORD has recently published of the triumphal entry of the German soldiers as they marched into Berlin, where they were enthusiastically acclaimed as victors.

One writer in a leading German paper bursts forth in the following enthusiastic words of welcome, and what he says is but typical of the spirit of the entire German nation as it welcomes back from the battlefields their looting, lustful soldiers, who are hailed as heroes and victors, who saved Germany from invasion. This writer says:

"To you the homeland brings again all that once you had—nothing is destroyed or broken! Here are the mountains and the castles and the bridges over the streams; the mighty cathedrals and the little white churches in the vineyards; the woods sung by poets; the little cities that lie peaceful in the valleys. Still stand the walls on which at eventide the young people sit, and the brooks still run in which the morning buckets dip. Soon fall softly to earth the great restful snowflakes, and old songs rise from around the burning wood fire.

"All this the homeland gives you back. And it also gives you this: the song in the quiet lane, the wine that sparkles in the shining glass, the peace and the brooding mood of the darkening chamber, the heart-true Yea, and the fidelity and the dream and everything that's German.

"Do you approach with creased brow and drooping mouth? Is it because much is lost, nothing gained, as you come back with empty hands and no hope? Clear your brow, take thought! Is it naught to you that the homeland is untouched? So long as you fought did one Frenchman or one Englishman tread German soil? If so, it was as a vanquished prisoner. We give you back what you preserved for us.

"As from the grave you stride forward, worn by cold and rain and scarred by the strife, you come from the heights of heaven, from the depths of the sea. Never fought men as you fought, and by it you kept undefiled the German earth. Your wounds are holy—we'll tend and love them."

It is with this spirit that we must deal. With Germany unconquered in spirit, unrepentant in soul, hating with a greater hatred than ever before, and the Bolshevism of Russia likely to come more and more under the German domination and be turned by German militarism into a tremendous power for evil, we face a condition that demands alertness on the part of America and the Allies and a determination to meet the issue now rather than to wait until Germany is again ready.

We believe it will yet be proven that when this country stayed the march of the Allied armies "on to Berlin," we made a blunder which will cost infinitely more in lives and in money than it would have cost us to lead the Allied and American armies in triumph on to Berlin and there to dictate the terms of peace and there make Germany know the reality of defeat. Had we done this we might have stayed the march of Bolshevism and forever made it impossible for Germany to feel, as it now feels, that it has not been conquered, and its soldiers, instead of being welcomed back as victorious heroes, would have been humbled in spirit by overwhelming defeat on the battlefield by the Allies, and perchance in this way the spirit of the German nation would have been changed. We have helped to harden that spirit. We have made it possible for Germany to believe that it has not been defeated. We have given encouragement to the German people to welcome in triumph their returning soldiers when we should have compelled them to see the flags of America and the Allies floating triumphantly over Berlin. We fear we have made one of the monumental mistakes of human history, and the struggle which we shall now have to make to save the world from a chaos of Bolshevism might have been averted.

## Secretary Lane Outlines Plan for Large Power Development to Meet Anticipated Industrial Activity.

SECRETARY LANE is an enthusiastic believer in a quick revival of industrial activity and expansion. He believes that the present period of transition will be brief and that we shall soon enter upon a business development which will create a demand for power far beyond the existing facilities of the country. With this in view, he is seeking Congressional co-operation toward an investigation of the subject.

Dr. George Otis Smith, Director of the United States Geological Survey, operating under the Department of the Interior, in a letter to the MANUFACTURERS RECORD writes:

"As a matter of current interest I am inclosing for your information and such use as you may care to make of it a copy of a letter addressed by Secretary Lane of the Interior Department to the Chairman of the Appropriations Committee of the House of Representatives, Hon. Swager Sherley. Secretary Lane regards the proposed investigation as of the highest economic importance to the region affected, and, in fact, to that portion of the country using anthracite coal and to the transportation facilities of the railroads which will be released for the transportation of other commodities."

Secretary Lane's letter to Congressman Sherley, to which Dr. Smith calls attention, is as follows:

"I am today sending to the Secretary of the Treasury a supplemental estimate of an appropriation of \$200,000 to be expended in the fiscal year 1920 for a special investigation and report on the power supply for the industrial region of the North Atlantic seaboard extending in general from Boston to Washington.

"I respectfully urge that your Committee consider this estimate favorably, because I believe the investigation will form the basis for a constructive national policy of the highest economic and industrial significance. The country is now passing through a period of transition which, I firmly believe, will soon be followed by one of industrial activity and expansion. The enormous development of war industries had created an almost insatiable demand for power, a demand that was overreaching the available supply with such rapidity that, had hostilities continued, it is certain that we should now be facing an extreme power shortage. Happily such a crisis was averted by the signing of the armistice, and the ensuing curtailment in the demand for war materials has carried us past immediate danger of a power famine in the industrial districts of the Northeast.

"This subsidence in the demand for power will, I think, not be long continued. In a few months, and especially in the regions mentioned, I anticipate a greatly increased demand for energy, for which present facilities are inadequate. This demand will follow the resumption of industry under the operation of normal economic laws and in the face of international competition, factors that have been largely inoperative during the war. If the country is to reap the full benefit of this returning wave of activity it must be prepared to furnish industry and transportation with an adequate dependable and economical power supply. Only by increased economy in the production and distribution of power will it be possible for our manufacturers to decrease their production expenses and compete successfully in the world's markets, maintaining at the same time the American standard of wages and living.

"That there is opportunity for a system of power supply far more economical and efficient than that now existing in the areas under discussion cannot be doubted. It has for its central idea the development of a plan for the generation and distribution of power on a scale far more comprehensive than now exists in this territory and the more efficient use of the power in industry and in transportation.

"This result will be accomplished through the interconnection of existing power centers by means of a trunk-line transmission system of high efficiency. Into this trunk line energy will be fed from hydroelectric plants and steam-power stations located at tidewater and near the coal mines. From it will be taken the power required for each principal industrial center and for the electrification of trunk-line railroads and of such branch lines as may be located in metropolitan districts.

"Such a comprehensive system of power supply, making use as it would of unutilized or undeveloped water-power and of fuel now wasted at the mines, will result in large savings in coal. A very large amount of coal now consumed by steam-power plants can be replaced by the development of water power. Fuel power can be developed near the mines and the wasteful transportation of coal by railroad to that extent avoided. I am reliably in-

formed that as a conservative estimate 50 per cent. of the fuel now used by the railroads in this territory can be saved through the operation of trains by electricity instead of by steam locomotives, because of the much higher efficiency that can be obtained in the economical central station in comparison with the wasteful steam locomotive.

"The transmission of this energy as electricity instead of the hauling of coal by rail will relieve the railroads of this territory of an enormous freight burden, thereby making available transportation for the hauling of other commodities. This is a matter of far-reaching importance. Not only would the railroads in the immediate territory be relieved of hauling the coal for their own locomotives, but other railroads supplying them with coal would be relieved proportionately. This easing of the present strain on trackage and equipment would result automatically in an increase in transportation facilities, the necessity for which the country is now facing.

"Such a comprehensive system of power supply will give opportunity for the more continuous use of existing power plants through the operation of the diversity factor; that is, power for which there is no demand at a certain time in one locality can be transmitted to another locality needing power at the moment. Spare units in one power center can then be used to assist other power centers in case of emergency or breakdown. A large amount of spare capacity can thus be brought into service and the capital already invested in existing power stations thus made more productive.

"That such economies and efficiencies can readily be obtained has been amply demonstrated by the repeated application of these principles to local situations. It is my conviction that they can be applied regionally with even greater success. My purpose in asking for the appropriation is to make possible the investigation necessary to their practical application in this particular region. The report to follow would present a definite plan for development and estimate accurately the savings to be effected.

"I am urging the earliest possible action, because I believe such a plan should be formulated at once before we enter upon a new period of industrial activity, so that the new construction that will be required may be co-ordinated with such a plan, and developments that will not harmonize with the plan may be avoided.

"This appropriation is requested not as a substitute for but as a supplement to the other estimate submitted by this Department for the investigation of fuel and power problems covering the whole United States. Fundamental studies dealing with principles of power supply and fuel utilization are prerequisite to more intensive investigation of the kind that I am bringing to your attention in this letter."

The MANUFACTURERS RECORD is in hearty sympathy with the plan suggested by Secretary Lane for an immediate investigation of all the power potentialities and the opportunity for developing increased efficiency in the generation and distribution of power in the specific territory to which he refers, extending along the Atlantic seaboard from Boston to Washington. The scheme is a very broad and comprehensive one, of far-reaching importance. But we do not believe that the investigation should for a moment halt in that territory. It is true that this is the most thoroughly congested industrial region of the country, but for that very reason power potentialities in other sections should be thoroughly investigated in order to bring about conditions which will round out the industrial development of the country and prevent the further intensification of industrial congestion along the Atlantic seaboard.

This congested district needs all of the conservation of power which Secretary Lane suggests, but coincident with this investigation there should be a complete study of the power potentialities in the whole Appalachian section of the South and on out into the Southwest. In this Appalachian section there is a vast amount of unutilized power which could be made available for use in the central region of the country to the vast benefit of the whole nation.

In the West and out on the Pacific coast there are also great power potentialities which could be developed to the advantage of the nation and which the Government should

investigate at the same time that it makes a study of the congested regions along the Atlantic seaboard.

It is true that the congestion along the seaboard demands quick attention, but this very congestion also demands that efforts should be made for the rounding out of the nation's industrial activities by giving all possible encouragement to the growth of manufacturing in other sections.

We have temporarily overdeveloped the central East, based on the facilities for distribution now available, while we have failed to develop the almost limitless resources of the South and the Southwest and the West as compared with their possibilities.

The true, well-rounded development of the business life of the nation can never be secured until the Government co-operates in the upbuilding of industrial activities in the regions now only slightly developed. We trust, therefore, that Secretary Lane will not only have in mind the investigation of the power resources of the entire country, but that he will begin this investigation coincident with the proposed investigation of the situation along the Atlantic seaboard.

### GERMANY AS REVEALED BY GERMANS.

**T**HE Deutsche Zeitung, like many other German papers, has no more sense of repentance nor appreciation of Germany's crimes than the majority of German people. It continues to preach hatred, but without a word to indicate that it has any regret for the awful saturnalia of crime brought upon the world by Germany.

In a recent issue it said:

**"Very well, then let's nurture in our hearts and the hearts of our children a profound and bitter hatred for our enemies. May every German who loves his fatherland devote himself to spreading this hatred.**

**"In the meantime let us devote all our efforts to regenerating Germany. Our country possesses resources which we ourselves never suspected, and the domination of the world by Germany isn't impossible even yet."**

These statements come from one of the leading papers of Berlin. They voice the thought of the people of Germany. They do not recognize defeat nor do they recognize their crimes which caused their defeat. They are still seeking to plant in the children, even those yet unborn, a hatred of America and France and England, and they are still looking forward with hope in their ability in the future to conquer the world.

We should not forget that this is the spirit of the whole German race. It is unconquered, unpunished, unrepentant, and yields temporarily only in order that it may plant still deeper seeds of hatred and that it may look forward to the day when once again Germany's armies will seek to overrun the world.

It was because we believed that this would be the spirit of Germany, and that ultimately out of this spirit would come far greater loss of life and suffering to mankind, that the MANUFACTURERS RECORD insisted that there should be no peace until the armies of the Allies and America had planted in triumph the flags of these countries on the palaces of the whole Potsdam gang. Then, and only then, would the people of Germany understand the meaning of war and the sufferings of war, though even then they would never have known by any personal experiences of the horrible sufferings which they inflicted upon the countries ravished by their accursed armies. German women would have been safe. German children would never have been molested and mangled by the armies of America and of the Allies. German cathedrals and churches would not have been ruined. But even though we carried on war in a civilized way, the advance of the American and the Allied armies through Germany to Berlin would

have given a living proof to the whole German race that they had been conquered, and they would then understand something of war. It would at the same time have been possible for the Allies and America in possession of Berlin to have watched over much of the Bolshevistic movement which, having first been planted in Russia by Germany, may yet endanger all civilization by spreading back from Russia to Germany and thence throughout the world.

History, we believe, will record the fact that though the sacrifice of life would have been great in driving our way on to Berlin, the sacrifice which we must yet make will be far greater than if we had faced the issue then and carried our flags in triumph to Berlin.

In connection with these statements from German sources, it is interesting to note some criticisms made by Viscount Kato, one of the leading statesmen of Japan, who in the course of a recent address in his own country reviewed the history of his dealings, while Japanese Ambassador to England, with the German Ambassador, and the efforts of the latter to induce him to do some dishonorable things. In closing his address, Viscount Kato said:

"All this typifies the proverbial German baseness and treachery, and we can congratulate ourselves not only for Japan, but for the whole world, that fate has recoiled upon Germany's own head the curses and intrigues which she had so heinously thrown broadcast upon the rest of the world."

And yet some Americans still affect to think well of Germany! There are some also who apparently think well of Hell, and gladly do its bidding. One class is on a par with the other.

### THE MENTAL INDIGESTION OF FALSE EDUCATION.

**W**E are witnessing a campaign of thinly disguised socialism under the name of public ownership, which is necessarily politician ownership, wasteful, corrupt, negligent and generally inefficient. It founds its platform upon ignorance. It pleads that it can give the most ignorant, particularly those ignorant of their own choice, something which they have not earned at the expense of those who are doing the real work of the country; who are creating what the Burlesons and Hylans would destroy. Of course, destruction is not their aim, because they have not the intelligence to see the inevitable consequences of their propaganda or to learn from such glaring object-lessons as the recent administration of the railroads or the traction situations in Boston and Chicago.

This is the force we have to fight. It is the peace problem above all others. Indemnities will be taken care of by the intelligent and industrious; territorial adjustments can be made by wise statesmanship. But the problem of ignorance remains, and never was more desperately serious.—Wall Street Journal.

This ignorance is not so much the ignorance from lack of so-called education, but ignorance of great fundamental economic truths. Bryan is not ignorant so far as books go, but he is densely ignorant so far as common sense goes. La Follette is not an unlearned man, but his learning is a curse to the country because his mind has been wrongly trained. The rankest anarchist may be highly educated in books, but proves to be only a ranting blatherskite in the great questions before the world. The learned professor who knows by heart the history of all mankind may be and sometimes is such a one-sided man that his learning makes him all the more dangerous.

Education is of prime importance, but what the world needs is a sensible education of the educators. Our schools and colleges are filled with men who have book learning, but no business sense nor common sense, and so with half-baked opinions they feed their students and produce mental and moral indigestion. The world is suffering to an alarming extent from this indigestion, which fomented anarchy and Bolshevism and socialism.

## THE MIGHTY PROBLEMS WHICH AMERICA MUST FACE AND SOLVE.

**V**ICE-PRESIDENT MILES T. BITTING of the National Slag Co., Allentown, Pa., in a letter of enthusiastic praise for the work of the MANUFACTURERS RECORD, says:

"We wish to commend you for the stand you have taken in the great fight to arouse true American spirit in the American people. I know that your editorials have done remarkable work in offsetting the German propaganda machine.

"I have several business friends in mind now, whom I will tell about your magazine at the first opportunity."

We wish every reader who feels about the MANUFACTURERS RECORD's work as Mr. Bitting does would not merely take the first opportunity to tell his friends about this publication, but that he would make the opportunity.

We believe that the dangers which this country faces for the next few years will be greater than it faced ere American soldiers had with the Allied troops broken through the Hindenburg line and saved Paris and all civilization from the crush of barbarism.

This country will have to meet the great issues of socialistic, Bolshevistic anarchy, rank and rotten in its work. It will have to meet and solve the problems of transportation by rail and highway and water. It will have to face problems connected with foreign trade, with world peace movements, with protection or free trade, from many angles which never before had to be studied.

The next four or five years will be a more critical period in the life of America and in the future of civilization, than have been the last five years.

To the task of studying these problems every reputable newspaper must bring the broadest discussion which it can possibly secure from the ablest leaders in the country.

It will be the aim of the MANUFACTURERS RECORD to bring to the discussion of all of these problems the best thought of the country. It invites full and free discussion of every issue which the nation faces. Employers and employees, statesmen and business men, professional and non-professional men, the producer of foodstuffs and the consumer, must all study the great questions of the hour with deeper concern than ever before in their lives. Never were the problems for discussion so many and so weighty; never before was there such a responsibility resting upon the intelligent honest-hearted people of the country to put aside, if need be, all preconceived notions, and face all the new issues of the hour impartially and with a willingness to know the truth and to follow the truth wherever it may lead.

The MANUFACTURERS RECORD feels that the task of the next few years, so far as its own work is concerned, is much greater and more responsible than that of the last five years. In this work it seeks the co-operation of every reader. It wants to know what its readers are thinking about, whether they agree with its views or not.

It is not possible to publish all of the letters or suggestions received. Many of them are not written for publication, but as we go through our correspondence and study the intelligently expressed views of men in all walks of life, we are the better able to understand what people are thinking about and why they are thinking as they do.

If the work which has been done by this paper—and that which it must, if it is to do its duty, accomplish in the coming years—is worthy of the commendation of intelligent business men, we shall welcome their co-operation in extending its circle of influence.

It may be said with entire accuracy that the business men of the country have greater problems to face than they have had to meet during the last five years. Patriotic men and women have a greater responsibility in helping to shape the

thought of the country than they had in arousing the patriotic spirit in order to save this country from German barbarism.

Vain would be the defeat of Germany on the battlefield if Germany can win through the poisoning of the wells of thought of the country and the development here of socialism and anarchy and Bolshevism, the natural fruition of which is the bloody chaos in Russia, a chaos clearly described by Dr. Goudendijk, a former Minister from Holland to Russia, who has recently returned from Petrograd. In an interview in the London Times and republished in the Literary Digest, Dr. Goudendijk warns that Bolshevism means the end of civilization wherever it spreads. In his interview he said:

"I wish to give a solemn warning to the working classes of all nations. Bolshevism, I say without exaggeration, is the end of civilization. I have known Russia intimately for 20 years, and never have the working classes of Russia suffered as they do at the present moment. I have never seen or dreamed of the possibility of such corruption, tyranny and the absence of all semblance of freedom as there are in Russia at the present moment."

"The bulk of the workmen in Russia are today far and away worse off than they ever have been, and the state of unemployment is simply terrible. When I left Petrograd the situation was one of utter starvation, and most people hardly knew how they would exist through the following day. The future to me seems hopeless. One thing is certain, that left as she now is Russia will be in a state of utter and complete ruin. Wherever Bolshevism rules the nation has been beaten to a pulp and is utterly helpless."

Bolshevism is one of the issues we must meet. It behooves every patriotic man to talk and write and think straight on Bolshevism and all questions of the day, and to spread broadcast as far as may be in his power every bit of literature, whether it be circular or paper or book, that intelligently and thoughtfully portrays the dangers which we must overcome if we are to be saved from a condition as desperate as would have been the capture of America by Germany.

We have an abiding faith in the American people and in the power of Almighty God to save this nation from such destruction, but we do not believe that even God Himself will save this country, nor that our own patriotism or inherent strength of character will save us, unless we do our part, and that means that every individual must do his part.

## EVIDENTLY SOMEWHAT SKEPTICAL.

**A** BUSINESS man in a letter to the MANUFACTURERS RECORD, referring to the impossibility of getting attention to some important suggestions which had been made to Washington authorities, writes:

"Meanwhile, I notice by the papers we are treading ethereal realms, with our heads away above the clouds, arranging conferences with Bolshevik assassins, learnedly discussing self-determination of Germans and Cannibal Islanders, and while soon again the poppies will blow in Flanders Fields, the free people of France has the inalienable right to sleep out in the rain if they haven't any houses to cover them.

"Well, it's a strange world in which we live. All that we can do is to keep sawing wood, and if that does not make things hot for some people we cannot help it."

## LOWER OCEAN FREIGHTS.

**T**HE heavy reductions in ocean freights now made possible by the armistice should quickly stimulate the world's foreign trade. These changes are especially welcome to the cotton trade, which has been greatly handicapped by the high rates due to the war, but lumber and iron and steel and, indeed, every other industry should immediately feel the quickening power of this reduction.

Once more the commerce of the world gets back to fairly normal rates and business men can now look abroad for trade with the assurance of reasonable freight rates.

## SHALL THE NATION BE HONEST OR DIS-HONEST?

Miakka, Fla., January 20.

*Editor Manufacturers Record:*

The MANUFACTURERS RECORD is indeed a great publication, and I admire it for its bold and fearless style of expressing its views on public questions. As a rule I agree with its vigorous and progressive views, but its late assault on the "War Trade Board" for permitting potash to come from the Lorraine deposits for the immediate relief of the farmers of the United States is, to my way of thinking, the most unwarranted and illogical position that I have ever known the MANUFACTURERS RECORD to assume. For the War Trade Board to sit down and supinely wait for the farmers to be supplied by our domestic sources with a supply of potash, when it is known that this is both experimental and problematic, would be a monumental crime against the farmers of the nation.

You should bear in mind that the farmers and fruit growers of the United States have not been able to procure the requisite amount of potash now for several years, and if our returning ships can bring a supply for our immediate relief, for the "land's sake," let it come.

A. M. WILSON.

The supply of domestic potash is neither experimental nor problematical. Many thousands of tons of domestic potash are piled up in this country without finding any buyers. This potash was produced at the urgent request of the Government, including the War Industries Board. Does Mr. Wilson favor the Government's playing false with these producers and killing an industry which it had urged investors to establish? The farmers and fruit growers can get potash in abundance right now, produced in America, where an ample supply for all the needs of the future can be developed, if we are true to our own interests and true to our promise to the potash investors.

The MANUFACTURERS RECORD has a notion that good old-fashioned honesty and integrity in commercial dealings is not altogether above even the National Government, with all its petty officials and their bureaucratic despotism. Hence it demands honesty on the part of the Government in its dealings with the manganese, potash, chrome and kindred interests, and with the men who, upon the word of the Government, invested hundreds of millions to carry out Government orders now cancelled. Shall the nation be less honest than a business man?

## WAS BERNSTORFF LYING ABOUT COLONEL HOUSE?

COLONEL HOUSE deserves the sympathy of the American people. Even his worst enemies could not have wished upon him anything quite so bad as the enthusiastic commendation by former Ambassador von Bernstorff. The average man would feel just as much complimented by the commendation of the ruler of Hell as commendation from criminal von Bernstorff.

It happened recently that a report was spread broadcast that Colonel House had died and Bernstorff promptly published in a Berlin paper an appreciation of him. A wireless dispatch to the New York Times has the following:

Berlin, January 20 (via Copenhagen).—The Tageblatt, publishing an appreciation of Colonel House by ex-Ambassador von Bernstorff based apparently on the false report of Colonel House's death, who is personally acquainted with the Colonel, says he was the eyes and ears of President Wilson, and Bernstorff knew through his own experience how well Colonel House kept President Wilson informed on the European situation. Even his first trip to Berlin was undertaken in the interest of peace, as Bernstorff can testify from a personal conversation with Colonel House. In the winter of 1916 and 1917, when President Wilson proclaimed his program of peace without victory, Colonel House was the President's earnest collaborator. "No more honest pacifist ever existed," says Count von Bernstorff. "He was just the man to fight for Wilson's peace program. He hated war because he considered it contrary to human ideals. He considered the war profiteers a most despicable lot, and never bought any munition stocks.

"He told me repeatedly he had just as energetically protested

in London against the British blockade as the U-boat war, and couldn't believe either method would lead to a decision. The result would be nameless hatred, neutralizing all efforts for peace. I, as a German, must admit that House was quite correct in much he said in this respect.

"The war psychosis spoiled many honest people's judgment, but I can't believe that House looked at the peace problem from a different point of view previously. He was too matter-of-fact, too passionless. We may, therefore, assume that he stood for peace, justice and an international league till the last moment.

"The supreme cause of conciliation among nations loses in House its staunchest champion. I deeply deplore that I did not see this dear friend once more, and that he did not live to see the perfection of his grand ideas."

Since the report of Mr. House's death was incorrect, Bernstorff may again have the privilege of meeting one whom he classes as his "dear friend" and whom he hopes "once more" to meet.

Bernstorff, the archfiend of Germany's criminal policy; Bernstorff, the black-hearted scoundrel, the instigator of murder and riot in this country while it was at peace with Germany, and Bernstorff, the liar and looter, claims Colonel House as his "dear friend!"

Nothing that the bitterest enemies of Colonel House, whether in the political game of Texas as a boss of politics in that section, or whether in the larger game of international politics, in which he is now engaged, have said of him could possibly equal being called the "dear friend" of Bernstorff.

According to Bernstorff (but Bernstorff and all other Germans are such liars that no one knows what to believe), House told him that "he had protested just as energetically in London against the British blockade as he had protested against the U-boat warfare."

We hope that this is not true. We have never yet seen any charge against House quite equal to this. Is it possibly true that Colonel House was as much horrified at the blockading of German ports, which under international law Great Britain was thoroughly justified in doing, as he was horrified at the deliberate murder of innocent women and children on the Lusitania and other ships sent to the bottom by this fiendish crime of Germany?

Did Colonel House have no stronger condemnation for the U-boat warfare, with all of its atrocities, than he had for the blockading of German ports?

Von Bernstorff charges Colonel House with being "matter-of-fact, too passionless" not to have "stood for peace, justice and an international league." We hope Colonel House was not "passionless," for if ever there was a time in human history when the depth of passion should have been reached it was in protesting against the crimes of Germany.

Von Bernstorff also charges Colonel House with being the President's "collaborator" in the position taken by President Wilson in demanding of Europe peace without victory. We wonder if it is possible that Colonel House was responsible for misleading President Wilson into making such an address, for certainly the duty of the President of the United States was to speak in behalf of victory of civilization against barbarism? Is it possible that Colonel House had so great an adverse influence over President Wilson that he was able to hypnotize him and persuade him to make that much-to-be-regretted speech?

The MANUFACTURERS RECORD has not been greatly impressed with anything which it has been able to learn in regard to Colonel House. He was something of a political boss in Texas up to 1912, when he suddenly became a national character, but we have never thought anything of him one-half, yea, one-tenth, so bad as that he is a "dear friend" of Bernstorff—a "dear friend" and associate of one of the unhung criminals guilty of being an active factor in Germany's war upon all the world. We are strongly inclined to resent in behalf of Colonel House such a claim. We hope that Bernstorff is lying, just as he has persistently lied in the past.

## Lest We Forget Some of Our Own Shortcomings.

**E**ARLY in the European war the MANUFACTURERS RECORD began its campaign for national preparedness, claiming that it would be blood-guiltiness upon our nation if we were forced to send raw, untrained men into war. Indeed, one of the old heroes of Revolutionary days, when later on he advocated military preparedness, said it was cold-blooded murder to send untrained troops into battle.

In the boundless enthusiasm of our nation over results achieved we are apt to forget that many of our heroic soldiers were sacrificed because our nation was not prepared.

Mr. Caspar Whitney, European correspondent of the New York Tribune, lifts the veil for us and points out this fact in a recent letter, in which he said:

"We Americans are prone to count results unmindful of the cost, but even for our greater resources there must come an end to the economic, financial, human life debauch of wastefulness, which spells neither the intelligence nor the efficiency with which we are given to plume ourselves. The danger signal is already set in America; let us take heed. We shall be wise to ponder long and seriously the object-lessons of our unpreparedness, which cost us heavily in treasure and lives, and would have threatened our very national existence but for the safeguarding British fleet; of the clumsy, antiquated and didactic official governmental machinery which bungled our first efforts and delayed us in taking place beside the French and British troops that were fighting our fight and the world's fight for civilization and freedom against German domination and barbarism; of the hide-bound blind adherence to seniority, precedent, which clogged the wheels of initiative; of the obliquity in judgment and laxity in supervision that could have made possible so amazing a spectacle as that presented by our airplane fiasco; of the improvident disregard of plain necessity and common sense in failing to keep the soldier training camps full in America, which resulted in sending men to France direct to the firing line literally untrained and unseasoned.

"What this latter meant in lowered efficiency to the army and in casualties to the men themselves, General Pershing will no doubt some day confide to his chief, but I will say here that it was an expensive course, utterly unnecessary had the training camps been constantly refilled with fresh drafts as units were sent across to France, instead of waiting until practically all the first draft had been exhausted and there remained only the newly called with whom to respond to the demand for replacement troops.

"I talked with men on the line and in hospitals that had come direct from the draft call, who had received no training whatever, and officers told me they had men so received who had never fired a rifle until put into action at the front.

"Chances of war? Not at all. It was pure lack of vision, of intelligence, that instead of calling out the boys earlier to take the places in the home camps made by departing troops, the American authorities waited without any real need until the last urgent call and then sent the new draft men unprepared.

"One convoy of such green troops reached Brest with several hundred that had died on the voyage from influenza, which found them in their unseasoned condition and general ignorance of how to care for themselves (I don't mean as to medicine, of course) the readier victims. And the failure adequately to train aviators in America was responsible not only for costly delay in obtaining their service on the other side, where their little more than rudimentary knowledge had to be materially increased for the grim business of combat and observation, but also for the very high percentage of casualties when on emergency they had to be put into the air for real work against the enemy.

"Although in America we were manufacturing and sending abroad before we entered the war thousands of rifles and machine guns and shells, our own army would have been without enough rifles and entirely without machine guns, field and heavy artillery, as well as field kitchens, steel helmets and gas masks, had not Great Britain and France supplied us.

"Referring to our indebtedness to France for artillery, General Pershing says in his report to the Secretary of War, dated November 20, 1918:

"Although we soon began the manufacture of these classes of guns (seventy-fives, howitzers and long range fifty-fives) at home, there were no guns of the calibers mentioned manufactured in America on our front at the date the armistice was signed. The only gun of these types produced at home thus far received in France are 109 75-millimeter guns." And, says he in the same report: 'In aviation we are in the same condition, and here again the French Government came to our aid until our own

aviation program should be under way. \* \* \* and they provided us with a total of 2676 pursuit, observation and bombing 'planes. The first airplanes received from home arrived in May, 1918' (we officially knew war to be inevitable in January, 1917, although intelligent citizens of the United States had known it months before that time), 'and altogether we have received 1379.' When the armistice was signed we had about 800 'planes at the front, of which about 300 were Libbertys. There was not a tank of American manufacture on the line, and the Browning machine guns had begun to arrive only during the last weeks of the fighting.

"In giving these facts as I found them I am moved by no mere critical spirit, but now that the fighting is done, the Germans beaten and the shouting over, to ask the sober thought of our people, those readers only of the headlines, usually so thoughtless, so shallow on public questions not touching them personally, that we may profit by our experience. America's sons and daughters in France have made good, more than good, and their loyal support by the folks at home through food conservation, war relief work and Liberty loans leaves nothing to be desired; but the bungling in officialdom, the confusion and delay in forwarding, the miserable spirit which offered and the lax inspection which accepted and first sent to our soldiers shoddy blankets and clothing and abominably unsuitable shoes, was always inexcusable, culpable, and should be made by the people's guardian—Congress—never again possible.

"And, finally, the dedication of a 15,000-ton Government ship to the transporting of a Colonel House party and its 52 pieces of personal baggage on however important a mission at a time when passenger steamers were available and while the army was calling urgently for—in real distress—ambulances, for lack of which wounded had to be carried in motor trucks; for automobile spare parts, to supply which new cars were being dissembled; for motor trucks, needed to take supplies to our fighting boys on the line; for telephone wire for battle area communication; for horses, for want of which batteries were out of commission, and for doctors, mechanics and signal service personnel, of whom there was distressing shortage, ought to make somebody sit up and take notice.

"It is the A. E. F. in France whom America should acclaim—and this isn't to ignore or to minimize the very real and intelligent work done in Washington."

## WHERE DO THE AMERICAN PEACE COMMISSIONERS STAND ON PUNISHMENT?

**A**N Associated Press dispatch from Paris indicates a belief in France that the American delegates are not willing to accept the views of the French authorities as to the personal responsibility of the former German Emperor and his generals, and that, therefore, America may possibly take the position of opposing punishment of the Kaiser.

If this should be the decision of the American Peace Commissioners, they would certainly not represent the views of the American people. They cannot speak for America against adequate punishment for the Kaiser and the leaders in the great crimes committed. We cannot believe that American delegates will oppose punishment of the former Kaiser and his associated leaders. If they should do so they would justly call down upon their heads the wrath of the people of America, and indeed the wrath of the moral forces of the world.

We can readily believe from what has been said of Colonel House that he might take that position, for he once expressed the thought that, having lived in Texas at a time when men went out and shot other men in sport, he was not so greatly horrified by the reported atrocities from Europe. Even former Ambassador Gerard wrote two years ago that Germany would welcome Colonel House as a peace commissioner, and these things, taken in connection with Bernstorff's reported designation of Colonel House as his "dear friend," naturally create the impression that Colonel House might not insist upon the punishment of the criminals.

But surely President Wilson and the other Peace Commissioners are not of that stamp.

## FROM A HEART THAT BLEEDS FOR ONE WHO MADE THE SUPREME SACRIFICE.

**"L**EST we forget" that for four years the world endured a voiceless agony such as mankind had never known; that millions were murdered as they struggled to break the strangle-hold of barbarism as it grappled at the throat of civilization; that millions were crippled or blinded for life; that womanhood suffered as it had never suffered since time began; that the helpless infant and the aged man and woman died by the murderer's blow, we must constantly remind ourselves that all of this came as the natural result of Germany's long-planned campaign of murder and loot. It was not a war such as we had ever known; it was merely an atrocious, hellish, marauding plan to grow rich by murder, joyously entered upon by the entire German nation, from the Kaiser to the lowest peasant. Lest we forget these facts, which should guide our thoughts and our actions through the years to come, it is well that we be constantly reminded of the suffering and death of those who have offered their lives to save us from barbarism.

Here is a letter from one of our occasional correspondents, who, since her name last appeared in our columns, has endured the agony that comes to a woman who has seen her husband killed as he battled against the savages who sought to destroy womanhood and civilization. Her husband, Capt. R. F. Woodward, met his death while gallantly leading his men to victory. We believe Mrs. Woodward voices the right sentiments of sane-thinking people. Here is her letter:

*Editor Manufacturers Record:*

I read with interest Mr. Jas. Gould's letter in December 5 issue. My letter, "Lest We Forget," September 26, is akin to it, expressing the same idea, almost. I am glad there is one other at least who thinks and feels as I do. Since I expressed that idea to you I joined the ranks of "Gold Star" families, Capt. R. F. Woodward having been killed in action in October.

When I wrote "Lest We Forget" I had not yet been called upon to suffer this extreme sorrow. Now I, too, feel as do the Belgians, the British, the French, the Italian, and all other Allied "Star" wearers, and I can better understand what it means. And only those who have suffered can really be able to mete out justice.

Already, with peace, one feels that the world is getting back to the former "peaceful" basis. German whinings and German atrocities will soon be a thing of the past in memory unless we do something now to bring it home to the world that no one for a century must be allowed to forget. People are settling back into the easiest way, but this must not be allowed. What shall be done to punish Germany?

Ask those who wear a "Gold Star." The biggest celebrations of peace time one sees naturally amongst those who have lost no one. The others can only be thankful to God that no more, or at least not as many, will suffer as they do. For them not noisy demonstration, but heartfelt gratitude that right has triumphed; that the sorrow they feel is not vain. Though a million monuments were built, though all the gold in the world were given, though the Germans offered their lives, their labors, though all honors were showered upon the Allied dead, what would we not give to God for just one touch of a loving hand, for just one word of the silent voice? Ask those who know what this means what they would like to do to the Germans so that no one will forget.

Let us teach in our schools from henceforth that Hun means hate, hellish atrocities, horror.

Build some reminder in every city of the infamy of the Hun. Carve deeply in letters immortal that they who wear the "Star" shall see and know it was not worn in vain. Let us feed the Hun hog, that we may exploit the Hun hide. For what? That they shall pay a "Gold Star Indemnity" to those who have given and lost, for there are other soldiers who have lost—those, too, some of them uninsured—and these the Germans should be made to support. Why should our taxpayers do this entirely. There is still German gold or its equivalent. Nothing they could ever do will ever punish them enough for the stricken, depleted homes and treasures of the brave Allies. For every orphan in the Allied countries bereft through this war there should be taken from the German worker (men) a percentage of his earnings. This fund could then be used to educate the orphan and help the widowed mother.

And for the dear ones in France, what? Shall we disturb them? Who will love and care for them the most? Those brave French who know what they did for them, whose gratitude is without bounds, or we who can never know "how" they bled for humanity because only those who have been through can properly appreciate. What greater monument can the world ever have than those silent graves? Then let the Allies together work to preserve these hallowed spots, make a place of beauty of them for all time, and raise here in their honor some wonder monument for all.

(MRS. R. F.) JEANNE B. WOODWARD.

Norfolk, Va.

Let no one who has not suffered as she has suffered, and no one who does not know the meaning of Germany's atrocious campaign of murder dare to say that Mrs. Woodward is too harsh. God Himself never forgives an unrepentant sinner, and God Himself tells us that the unrepentant murderers and liars and whoremongers and all such shall suffer in hell. "And in hell he lifted up his eyes," said Christ the Redeemer, of one who was never charged with such crimes as the German people have committed.

Are we wiser and better able to judge than God?

Are we more loving and just than Christ?

The teachings of God's Holy Book, the teachings of Christ Himself have been emasculated by modern theology, which tries to sweep out of existence all of God's condemnation and punishment of unrepentant sin.

## DON'T WAIT FOR CHEAPER MATERIALS BEFORE STARTING TO BUILD.

**I**f you are thinking of building, don't delay on account of present prices. Materials are not likely to be greatly reduced in cost for a long time. Labor costs are chiefly responsible for present prices of materials, and in no intelligent or influential quarter is there any expectation or desire that wages are to experience a drastic cut any time soon, if ever.

Bearing on this situation is a letter received by the MANUFACTURERS RECORD from the great Kirby-Bonner Lumber Co. of Texas in response to our request for an expression of opinion as to the probabilities of a material reduction in lumber prices. The letter follows:

Kirby-Bonner Lumber Co.

Houston, Texas, January 25,

*Editor Manufacturers Record:*

Answering your recent question, we think the lumber buyer is playing a waiting game because he expects lower prices. The lumber consumer is playing a waiting game because he not only expects lower prices for lumber, but lower prices of labor. Even in a frame building lumber represents only about 20 per cent. of the cost, consequently a slight reduction in lumber prices would really be of no benefit to the builder. Labor is the big item.

As far as the lowering of lumber prices is concerned, will say the cost of manufacture is at such a figure at the present time that even the Government list of maximum prices did not return us a figure that permitted an operating profit with our costs on the basis of the last quarter of 1918.

If production of lumber can be increased and the efficiency of the employes increased, costs can be cut somewhat; but until this is an assured fact, if the manufacturer is to market his product at a profit there can be no reduction in prices.

HARRY T. KENDALL,

General Sales Agent.

## FERTILIZER INDUSTRY NOT ALONE.

**"T**HE fertilizer industry has suffered extremely during the war through hearty co-operation with the Federal Authorities."—Oil, Paint and Drug Reporter, January 6, 1919.

"That's going some!" comments the Journal of Industrial and Engineering Chemistry for February.

But isn't it true that most industries suffered from Government co-operation?

## SECRETARY BAKER OFFERS A PREMIUM ON COWARDICE.

SECRETARY OF WAR BAKER has justly called down upon his head the wrath of the American people. He has deserved it in this case, as he has in some others. Though hundreds of thousands of American soldiers who have endured the hardship of the camps and the battlefields cannot yet be discharged from duty, Secretary Baker has "honorably" discharged 100 so-called "conscientious objectors" who had been confined at Leavenworth, Kans., because they had refused to serve in the army. These "conscientious objectors," who should be spurned by every decent man, have done nothing for the nation's safety or their own, while millions of others, just as conscientious, have suffered in the training camps and on the battlefields to save civilization.

But these "conscientious objectors," who found it easy to swear that they were "conscientious objectors" in order to save themselves from the dangers of the battlefields, are now given an "honorable discharge," and as though that were not a sufficient insult to the real soldiers, they were, by the express order of Secretary Baker, so the dispatch from Leavenworth says, paid from \$400 to \$600 each as back pay and allotments.

Hundreds of thousands of soldiers have found it difficult to get their pay on time, and their families have suffered because of the slow payments made, but these "conscientious objectors" are promptly given in cash their full payment of \$400 to \$600 and sent on their way rejoicing. They were never active soldiers because of their refusal to serve, and they yet were not only given this back pay, but they were authorized to travel on the railroads at the same rate as honorable soldiers.

According to the dispatch, these men were "honorably restored to duty" and then given their discharge. No wonder there was promptly introduced and passed in the Lower House of the Kansas Legislature a resolution declaring the action of the Secretary of War "as mischievous, unwise, unpatriotic and destructive to the morale of every person wearing the uniform of the United States Army," and also declaring that Secretary Baker's action "placed a premium on slackness, cowardice and mawkish sentimentality."

The Kansas Legislature acted wisely.

## SLAUGHTERED BECAUSE THEY WERE CHRISTIANS.

TO show how little we know of suffering in this country, it is only necessary to turn to a page, any page, in the awful history of the Armenian massacres. It is not a new story, for killing Armenians has been a constant pastime with the Turks for ages. But inspired by the Germans, who taught the Turks new forms of barbarism and atrocity, as Oscar S. Straus, ex-minister to Turkey, has declared, the treatment of the Armenians in the great war has been the blackest chapter in the criminal annals of all time. Because they were Christians, and have been since the days of Paul at Antioch, there has been hereditary hatred by the Mohammedan Turks; because they were pro-Russian in this war their slaughter was encouraged by the Germans. So the Turks, officered by Germans, controlled by Germans and inspired by Germans, set out to exterminate the Armenian people.

Probably more than a million men, women and children have been most fiendishly slaughtered—by bayonet, the knife, the bullet, starvation, every brutal form of torture and destruction. A favorite sport was for women about to become mothers to be bayoneted in turn by numerous soldiers. Young girls just past adolescence were violated publicly, their families compelled to look on, and this done in batches. Children were starved before their mothers' eyes. Young men were killed by forced marches over deserts, with food and water denied them. In more merciful moods, old men and old women were lined up and shot.

And so it all went on, "fearfully, horribly, and to make the blood of all Christendom boil," as the Macon Telegraph has hotly declared, scathingly reviewing the work of the Hun and the Turk, and marvelling that there should anywhere be talk of "a healing peace" with the perpetrators of such crimes.

To save the remaining Armenian sufferers, the orphans, the starving, the destitute, old and young, who escaped extermination, \$30,000,000 is asked as a contribution by the United States. The American Committee for Relief in the Near East is to inaugurate a drive, beginning next Sunday. The churches will announce the program, and local officers will receive the funds. With America fully making up the portion asked, it is declared that the lives of all the destitute may be saved. The appeal is powerful. How can it be denied?

## WHAT IS MR. WILSON'S PLAN?

FRANK H. SIMONDS, cabling from Paris to the American papers he represents, praises the great influence which President Wilson had in Europe, but ends a lengthy dispatch with the following:

"In my judgment the great Powers, as represented at Paris, are nearer together than they were two months ago, and the dangers of any break have become remote.

"Yet, at last, I return to the point at which I began. Mr. Wilson's greatest opportunity remains, but in a sense is passing; Europe wants peace and hopes for the millenium; it is ready to accept his leadership to an unexpected degree, but it is beginning to ask whether he has a plan.

"Abstract principles must soon be translated into concrete applications, and so far Mr. Wilson has refrained from giving a sign not merely to Lloyd George and Clemenceau, but even to the amiable Mr. Lansing."

The world may well ask, What is Mr. Wilson's plan? What is America being led to support, if we are to support the President's plan when and if announced? The situation is too vital for us to walk longer in the dark.

## THE POTASH SITUATION AGAIN.

FROM one of the men who has worked incessantly to build up the potash industry the MANUFACTURERS RECORD has the following comments on the situation:

I have read in several newspapers that Mr. Baruch is reported to have cabled Senator Hitchcock that there will be no potash imported for some time to come. This has so reassured Senator Henderson that he now takes the ground that legislation to protect the American potash producers is not necessary.

The American producers have, however, lost most of their confidence in assurances which emanate from Government authority, and so would feel a great deal better satisfied if they were protected in a suitable way, instead of simply by the assurances of persons whose word is not law, as would be an act of Congress. Too many mineral producers have been stung by assurances which emanated from those supposed to be in authority, and who really were in authority so far as the producers were aware. I dare say that from recent experience mineral producers will not be disposed to go very far in committing themselves on the strength of assurances from the United States Geological Survey, Bureau of Mines or any other Government department.

Therefore, even if no protection be needed, there could be no objection to legislative protection written on the statute-books, and it would seem that this is absolutely necessary to build up the American potash industry. American producers will not be willing to accept anything less than protection of this kind, because they have stopped believing the kind of outgivings that we read of in view of previous experience. It seems to me that this is a matter which could hardly be overemphasized by those who are truly anxious to build up the American potash industry.

No assurances are going to be accepted by American potash producers unless such assurances are actually enacted into law.

While we are urging protection for potash, we should not overlook the fact that our country in the past was dominated by Germany in the barytes industry. We have now built up a very healthy barytes industry of our own, which industry should undoubtedly receive adequate protection.

### "THE PERILS OF GERMAN INTRIGUE, TREACHERY AND PROPAGANDA."

Editor Manufacturers Record:

I may be somewhat late in congratulating you upon the improved appearance of Manufacturers Record, but the fact is that I had a strong attachment, born of the association of ideas, for the old Record, and I had to become accustomed to the change before I could reconcile myself to it. In nothing, perhaps, is one more conservative than in one's unvoiced demands that one's friends shall remain unchanged. At first it was not easy for me to recognize the old friend in new garb; it was strange and almost foppish. It was not until the familiar voice was heard, strong, vibrant and unfaltering, that I fully recognized the identity.

The new Manufacturers Record certainly is convenient in size, and it is modish and attractive in appearance, but what rejoices me most is the fact that these concessions to the canons of good journalistic taste have in no wise affected the Record's virile qualities or militant spirit.

The signing of the armistice has not blinded you to the perils of German intrigue, treachery and propaganda, nor has it blunted your sense of justice.

Like you, I have seen no evidence of repentance on the part of Germany or the Germans, nothing to indicate a chastened spirit or a sincere desire to merit the world's confidence and magnanimity. I have seen only a cunning attempt to escape just penalties for sins unpunished.

I wonder, sometimes, at the sloppy condition of American brains when I see people so easily gulled by transparent subterfuges, so easily diverted from serious thought, so unstable in purpose and so inconstant to high moral standards. German psychologists may not be wholly wrong in their judgment of the American people. Surely no stable people could soon forget what Germany has done with deliberate intent and with every manifestation of fiendish delight. No rational being can for an instant believe that Germany is not at heart and in purpose eager to repeat at the earliest possible opportunity. No man whose judgment is not swayed by maudlin sentiment can fail to see that Germany is conducting active propaganda for the creation of false sympathy for Germany and to foment discord among the Allies. The camouflaged hands are the hands of Esau, but the voice is the voice of Jacob, and unless the blind and feeble-minded Isaacs of America soon detect the imposition, civilization will be cheated out of the heritage it won on the blood-soaked soil of Europe.

Let us hope that softening of the brain is not general among our people, but is confined to a small, if pestiferous, minority.

It is because the Manufacturers Record's voice still rings true to stalwart Americanism, and because its heart still sends red blood to nourish strong brains, and because courage and keen insight and manly vigor direct that journal's policy, that I have been able, after some lapse of time, to feel that, notwithstanding the alteration in outward appearance, my old friend remains unchanged.

F. A. CHURCHILL,  
Manager, Press Service,  
The Dunn Wire-Cut Lug Brick Co.

Conneaut, Ohio.  
January 27, 1919.

### War-Time Activities Now Disclosed at Busy Port of Newport News.

Newport News, Va., January 25—[Special.]—During 1918 Newport News virtually doubled in population, and the year-end statements of its banks show that it also doubled in wealth; 1918 furthermore brought this Southern port into international limelight first as a port of embarkation and now as a port of debarkation for a large part of the men and freight for the American Expeditionary Force in France.

The port of debarkation, as it is now called, is commanded by Brigadier-General H. B. Ferguson, who, with his staff, has made an enviable record for the handling of troops and dry cargoes for the A. E. F., and is now receiving and dispatching the returning troops with equal efficiency. The port of debarkation is in reality an all-embracing name for the several big institutions of shipping which compose the group. Briefly, these are the ordnance depot at Big Point, on the west bank of the James; the engineer depot at Lambert's Point, near Norfolk; the army supply base at Tanner's Point, near Norfolk; debarkation No. 51, a hospital for overseas sick and wounded, composed of the National Soldiers' Home group of buildings, near Fort Monroe; debarkation No. 52, near Camp Stuart; the embarkation and debarkation camps of Stuart and Hill, on the east bank of the James River; animal embarkation depot No. 301; a stevedore and labor camp at Camp Alexander; aviation concentration camp at Camp Morrison, and the pretentious group of administrative buildings, docks, piers, warehouse and officers' quarters in Newport News proper. Nearly \$15,000,000 was spent in the construction of these buildings, which were begun in July, 1917.

During 1918 there were shipped overseas 270,328 officers and men, 35,884 animals and 1,264,307 tons of freight. The "peak" month was October, when 161,071 tons were shipped. Five hundred and seventy-three ships arrived at the port and 536 sailed during the year.

The port of debarkation had chiefly to do with the return of 20,179 officers, men and civilians during 1918.

The Newport News Shipbuilding & Dry Dock Co. has just closed the greatest year in its history for the production of ships and repairs. During the year the average number of men employed was approximately 10,250 men. Eighteen vessels were completed, including a battleship for the United States Navy. Repairs were made on approximately 1000 ships, and 22 were launched during the war period from April, 1917, to November, 1918. Even with this great production program going at full speed during war times, \$5,000,000 was spent in enlargements and improvements to the shipyard, the chief items of which were two 1000-foot shipways and several hundred buildings for the employes of the company.

ROY G. BOOKER.

### A National Asset.

[St. Augustine (Fla.) Evening Record.]

Of course, the MANUFACTURERS RECORD would be just as valuable to the nation in one form as another, but this last change is perhaps just a little more pleasing from a typographical standpoint. As for the weekly contents, there could be no improvement. This publication has always preached pure, unadulterated Americanism, first, last and all the time as opposed to what may now properly be termed Bolshevism. It is and always has been outspoken in advocacy of better citizenship, higher standards of living, clean politics and loyalty to our great country and her institutions, having due regard for the rights of other peoples of other nations. There has never been any taint of the jingo, but rather an appeal to broadness of thought and toleration for others. It is these things that have made of the MANUFACTURERS RECORD a national asset.

### The Manufacturers Record in Changed Form.

[Florence (Ala.) Times.]

The Baltimore MANUFACTURERS RECORD the ablest journal of its class in the United States, has changed its form to that of the magazine. The change has improved what was already one of the finest publications in the country in typographical appearance. The change will doubtless be approved warmly by the thousands of friends of the great periodical. The MANUFACTURERS RECORD is a great paper. In editorial ability it has no superior. It has been invaluable to the South, in whose interest it has labored with a loyalty and ability beyond praise.

[Atlanta Constitution, February 2.]

# Make Cotton Subject Instead of King and South Will Forge Rapidly to Front

R. H. EDMONDS, EDITOR OF MANUFACTURERS RECORD, DECLARES COTTON HAS BEEN A CURSE TO THE SOUTH, AND THAT REAL PROSPERITY WILL NOT COME UNTIL IT IS MADE SECONDARY CROP TO FOOD AND FEEDSTUFFS.

## Editor Constitution:

The present price of cotton is without any justification. There is a great shortage in the world's cotton supply as compared with the world's actual needs. The law of supply and demand must ultimately change the situation and bring about higher prices if the cotton growers can withhold their cotton from the market until the buyers are compelled to come in and pay a fair price.

It was to be expected that immediately upon the signing of the armistice there would be a hiatus in business and more or less uncertainty in all trade conditions. This we are now seeing. The change to better conditions should come about in the near future. Fundamentally, there is no justification for inactivity in trade or depression in business. Just as soon as the business condition can right itself, there should be ample employment for every man in the country, with a quick revival of general business prosperity. There should, therefore, be no depression in cotton or of general dullness. Indeed, even if the general industrial interests of the country were not prosperous, the position of cotton is so unique that the price should be very much higher than it is and every bale be absorbed, and that, too, entirely without depending upon Germany and Austria.

It would be a great mistake from the moral point of view for us to seek to open up trade relations with these accursed nations of robbers and rapers. Perhaps the time may come when we shall have to sell them cotton again, but certainly we do not need to seek their trade. Other cotton-consuming countries can easily absorb every bale of surplus cotton over and above the actual requirements of American mills, and we should prefer that our allies shall have their mills in full operation with an ample stock of cotton on hand before a single bale goes into Germany or Austria.

## Deny All Advantages to Huns.

Not until Germany has restored every piece of cotton-mill machinery to the wrecked mills of France and Belgium, not until every cotton mill in those countries destroyed by Germany for the express purpose of giving its own mills an advantage over them is in full operation, should Germany be allowed to have a bale of American cotton.

This, however, should not in the slightest militate against a high price for the South's cotton. The requirements of other countries entirely outside of Germany and Austria justify the absorption of every bale of cotton which we have raised during this crop year, and of every bale carried over from previous years. If, however, Southern farmers become frightened, or if Southern bankers fail to stand by the cotton-growing interests, prices may be broken down to still lower figures to the great loss of the growers individually and of the South as a whole.

It behooves every business interest in the South to unite in bringing about an increase in the production of foodstuffs and feedstuffs amply sufficient to take care of the entire needs of this section for the coming 12 months. We ought to make this the banner year for grain and livestock, and for all varieties of products which enter into the maintenance of man and beast, putting into cotton only the surplus land which cannot be advantageously used for foodstuffs.

The South has it in its power this year to teach the cotton-consuming world a much-needed lesson, and to show that it holds the dominating power in this industry and that it proposes to use that power for its own welfare with justice to the rest of the world.

For the last fifty years, with the exception of the last two, cotton has never commanded a fair price to the grower. The whole world has come to believe that it is the duty of the South to raise cotton and sell it at the lowest possible point, and the bugaboo has constantly been held up by Washington authorities as well as by speculators that it is the South's duty to sell cotton at a

low price in order to prevent the development of cotton growing in other countries. Both statements are absurd.

## Cotton a Curse to the South.

I have no hesitation in saying that it would have been infinitely better for the South if it had never raised a bale of cotton. This, the most royal crop ever given by Providence to mankind, has been a curse to the South. It fastened slavery around the neck of the South, and out of this came a condition which resulted in the Civil War. It has caused the South to think in terms of cotton, to base its religious and educational activities on cotton and to raise cotton merely for the purpose of buying foodstuffs from other sections. At times it has looked as though we of the South have cotton bolls for brains and a cotton string for a backbone, because we have permitted the rest of the world to absolutely dominate the cotton trade and hold the South in slavery by low-priced cotton.

Cotton has enslaved the South mentally and financially to a far greater degree of injury than was the physical slavery of antebellum days. Every man who has sought to beat down the price of cotton has by that very act helped to forge the chain of slavery of poverty around the people of the South.

Holding a practical monopoly of this, the most important single agricultural product known to mankind, the cotton growers have lived in poverty almost unknown to any other agricultural region of civilized countries in modern times. Producing far less per acre in value of wheat and corn, the Western farmers have grown rich on their agricultural activities. The Southern farmers have been held in the chains of poverty.

The laborer on cotton plantations has never received wages sufficient to give him a decent living.

If for the last 50 years the South had received a fair price for its cotton, the cotton growers, tenants, laborers and landowners would have advanced in wealth to such an extent that the condition of the South would be infinitely better than it is. Out of their prosperity would have come a larger development of educational and religious life, better schools, better church buildings, better roads and better homes on the farms and in the far-away country districts.

Most of the dwellings now used by the poorer tenants on Southern cotton plantations are mere hovels unfit for human habitation. It is not possible for men and women to live as most of the tenant farmers, white and black, have lived, and yet make the moral and material advancement to which they are entitled.

## Breaking Down Price of Cotton.

When New England cotton buyers have sought to break down the price of cotton they have helped to forge the chains of slavery around the neck of the negroes for whom New England philanthropists always express such profound interest. Every effort made by New England cotton buyers, or, for that matter, by Southern cotton buyers to beat down the price of cotton is an effort to enchain in slavery the white cotton growers as well as the negroes.

If the South would forever break these chains of slavery and stand free before the world, it must place itself in a position to absolutely dominate the production and the price of cotton. No theory that it is incumbent upon the South to raise cotton for the good of the world is worth a moment's consideration. The South owes it to itself to produce agriculturally the things which will give to its people the largest profit which will help them to develop their educational and religious activities.

Had the South never raised a bale of cotton it would have concentrated its attention upon foodstuffs and livestock, and it would today be the center of the livestock industry of America, as it can yet be whenever its people will thoroughly make up their mind to center their agricultural activities on diversified agriculture and cattle and hog raising.

All of the experience of the past shows that the best interests of the whole South would be served by turning attention of Southern farmers into intensive cultivation of foodstuffs and of livestock production, putting to cotton only the acreage they can cultivate after they have provided all of the food and feed needed for their own use and for the use of their livestock.

#### Decline in Price May Be Blessing.

The recent decline in the price of cotton may yet prove a blessing to the South if it drives this section away from the worship of cotton, a fetish which will forever curse us as long as we bow before cotton and cause this section to produce the things which in the end will increase the fertility of our soil, enrich our farmers, give higher wages to farm laborers and bring a well-rounded prosperity to the life of the whole section.

Cotton as a subject ruled absolutely by the South could be made to aid in bringing prosperity to this section; but cotton continued as a king dominating abject slaves will forever hold the South in the slavery of poverty.

This is the crucial time for the South to assert its freedom, to break away from the power of cotton and enrich itself by producing other things. In doing this cotton growers who can afford to do so are fully justified in withholding every bale of cotton from the market until they secure a living price for it. At present prices it is not possible for the South to pay a fair living wage to its laborers and a fair profit to the landowners in growing cotton.

Until the South recognizes that the costliest labor in the world is low-priced labor, it will never obtain its full measure of prosperity. There can be no well-rounded progress and prosperity where the laborers, whether in the cotton field or in the factory, are not paid a price which enables them to live in a fair degree of comfort in dwellings worthy to be the home of American people, whether they are white or black.

Broadly speaking, the cheapest labor in the world is the highest-priced labor, for in proportion to the dollars invested it produces greater results in the long run than low-priced labor.

RICHARD H. EDMONDS,

Editor Manufacturers Record.

From editor's winter office, Daytona, Fla.

#### How Cattle Raising Can Be Increased.

Howard A. Burnett of Griffin, Ga., son of J. A. Burnett, one of the most progressive farmers of that section, has been awarded a thoroughbred bull offered by the Central of Georgia Railroad as a prize in its Boys' Calf Club Contest in Spalding county.

The foregoing brief news item appearing in Georgia papers shows that the boys of that State are appreciative of the need for increasing our meat supply. Everyone is familiar with the high prices for meat products, and everyone who has studied the conditions know that the production of meat animals in this country has not kept pace with the increase in population, to say nothing of the enormous increase in the consumption of meat for ourselves and our Allies during the last few years.

The Central of Georgia Railroad is working in the right direction when it is in this attractive way turning the interest of the boys of its territory toward cattle raising and pointing out the necessity of producing more meat animals. Though only one boy in each county could be so fortunate as to secure such a valuable prize, there are perhaps thousands who have learned the value of the proper handling and feeding of livestock during this contest. May the Central of Georgia keep up its good work, and may young Burnett become the cattle king of Spalding county and Georgia.

#### New \$250,000 Industry at Houston, Tex.

The Magnolia Gas Products Co., which represents an investment of about \$250,000, has begun business at Houston, Tex., manufacturing oxygen and carbon-cutting gases, which are extensively employed in metal-welding at various industrial plants and elsewhere. It will also sell welding and cutting equipment and supplies. The officers are B. D. Cash, president; P. S. Grogan, first vice-president; L. L. Sinclair, vice-president and general manager, and W. F. North, Jr., secretary-treasurer. All are of Houston excepting Mr. Sinclair, who comes from Cincinnati, O., being of the Armstrong-Sinclair Company, in the same line of business. He will make his residence in Houston.

#### Industrial Activities South.

During January the Construction Department of the MANUFACTURERS RECORD published 3619 items regarding industrial developments, buildings, financial and railway operations and general business interests of the South and Southwest. These items appeared in the Daily Bulletin and weekly in the MANUFACTURERS RECORD. Under appropriate headings, they are summarized in the following table:

	Totals for January.
<b>Industrial Developments.</b>	
Airplane Plants, Stations, etc.	2
Bridges, Culverts, Viaducts.	57
Canning and Packing Plants.	26
Clayworking Plants.	9
Coal Mine and Coke Ovens.	68
Concrete and Cement Plants.	2
Cotton Compresses and Gins.	14
Cottonseed-Oil Mills.	5
Drainage Systems.	28
Electric Plants.	59
Fertilizer Factories.	19
Flour, Feed and Meal Mills.	17
Foundry and Machine Plants.	43
Gas and Oil Enterprises.	134
Hydro-Electric Plants.	1
Ice and Cold-Storage Plants.	25
Iron and Steel Plants.	5
Irrigation Systems.	3
Land Developments.	25
Lumber Manufacturing.	55
Metal-Working Plants.	30
Mining.	48
Miscellaneous Construction.	93
Miscellaneous Enterprises.	145
Miscellaneous Factories.	124
Motor Cars, Garages, Tires, etc.	5
Railway Shops, Terminals, Roundhouses, etc.	261
Road and Street Work.	36
Sewer Construction.	10
Shipbuilding Plants.	4
Telephone Systems.	30
Textile Mills.	54
Water-Works.	33
Woodworking Plants.	
<b>Buildings.</b>	
Apartment-Houses.	29
Association and Fraternal.	25
Bank and Office.	25
Churches.	77
City and County.	29
Courthouses.	8
Dwellings.	234
Government and State.	45
Hospitals, Sanitariums, etc.	26
Hotels.	19
Miscellaneous.	22
Railway Stations, Sheds, etc.	191
Schools.	122
Stores.	23
Theaters.	59
Warehouses.	
<b>Railroad Construction.</b>	
Railways.	21
Miscellaneous Railways.	6
<b>Financial.</b>	
Corporations.	89
New Securities.	398
<b>Machinery Wanted.</b>	
Machinery, Proposals and Supplies Wanted.	509
<b>Fire Damage.</b>	
Fire Damage, etc.	262
Totals.	3,619

#### Dairy Business Greatly Developed in Houston District.

Houston, Tex., January 30.—[Special.]—A wonderful development of the dairy industry in the territory immediately tributary to Houston has occurred during the last few years, according to W. N. Thomas, director of the dairy division of the city health department of Houston. At this time there are 429 dairies in the vicinity of Houston. They represent an investment of approximately \$1,000,000 in dairy cows and an additional \$100,000 in dairy equipment, Mr. Thomas said. There are now seven pasteurizing plants in the county.

The Houston Dairy Fund Association, organized in 1916 with a paid-in capital of \$100,000, has been a prime factor in this development. It has loaned out money to Harris county farmers in capital, livestock and equipment. Two hundred farmers have taken advantage of the Dairy Fund, a large percentage of whom have come here from the North.

An interesting illustration of the workings of the fund is the case of a farmer who three years ago had an earning capacity of \$50 a month. He is now making \$500 a month on his milk.

# America's Remarkable Advance in High-Grade Steel Production

BALTIMORE PLANT'S ACTIVITIES TYPICAL OF COUNTRY'S ACHIEVEMENTS IN QUANTITY PRODUCTION OF BEST QUALITY ELECTRICAL FURNACE STEEL.

By CARROLL E. WILLIAMS.

Production of high-grade steels in America has so greatly developed in recent years as to warrant the belief by those conversant with the situation that never again will the manufacturers of this country return to the extensive use of foreign steels, no matter how keen may be the competition from abroad.

The outbreak of the war made it almost impossible for American manufacturers to secure high-grade foreign steel in appreciable quantities, and it became necessary that our manufacturers immediately produce steels equal in quality to those previously imported. Although the problems which beset them were many and difficult, American steelmakers succeeded in producing steel equal in quality and in many cases far superior to the best foreign steels of pre-war periods, thus making possible the quick delivery of adequate steel supplies for the manufacture of aeroplane engines, automobile engines, bearings of all types, and various cutting tools for the manufacture of finished products for our fighting forces. With these achievements has come entire confidence among producers in their ability to meet peace conditions. They have solved the problems of production, and the market that has been created for their products for purely war purposes is believed to be permanently established, so that the demand will simply be transferred to the production of peace-time necessities.

Typical of the expansion in the production of high-grade steels by the electric furnace method of production are the accomplishments of The Hess Steel Corporation of Baltimore, Md., whose plant during the war has been entirely devoted to the manufacture of essential war products used in the construction of aeroplane, automobile and truck engines, tool steel, gun jacket and tube ingots and ball-bearing materials. The company has succeeded in producing a 5 per cent. nickel case-hardening steel for crude shafts, gears, etc., in addition to producing a chrome-nickel alloy steel equal in quality to a similar product formerly manufactured by Krupps of Germany. Although working 100 per cent. on war orders when the armistice was signed, the company has already readjusted to peace-time production and has orders booked that will require the production of a large tonnage from the electric furnace. Plans for an extension of the plant to care for the orders are now being worked out. In 1910 there were 10 electric furnaces in operation in

this country; today there are about 330 furnaces of from one-half a ton to 25 tons capacity, and the production of steel from these furnaces in 1917 was 235,000 tons. During 1918 the installation of electric furnaces increased at an amazing rate here and in Canada, where 43 are now in operation or being installed, and the two countries now produce more than one-half of the total world output of electric steel.

Electric steel is made either by melting a cold charge and refining it, or by refining a molten charge from the open-hearth or Bessemer converter. The cold melt method is used principally in the manufacture of units under 10 tons, and the second method is specially applicable to furnaces having larger capacities. Because of the simplification of equipment and the assurance of quality, the cold-melt method predominates. Describing briefly the method of manufacture of electric steel by the cold-melt process in a six-ton Heroult electric furnace, as being representative of the majority of installations in this country, the process of manufacture may be divided into two periods; first, melting and oxidizing, and second, recarburizing and reducing. The removal of carbon in the first period is necessary in order to oxidize the impurity phosphorous, and in the second period the impurity sulphur is removed. The furnaces for reducing phosphorous are lined with a basic material, such as magnesite or dolomite, and limestone is charged in with the scrap. Oxygen is furnished by the rust of the scrap, and occasionally ore or roll scale is also charged to augment this supply. The phosphorous is oxidized by the slag that forms, combining with the lime, thus forming calcium phosphate. The slag also oxidizes to some extent the carbon, silicon, manganese and sulphur.

Because of its density, electric steel is usually cast in inverted molds, with refractory hot tops to prevent piping in the body of the ingot. Special precautions are taken in the further processing of the ingot in heating, in the reduction of the metal and in cooling. The rare purity of the heat de-



Pouring the ingots.—The steel, after being tapped from each furnace, is poured into molds equipped with refractory hot tops to prevent piping.

rived from the electric arc, combined with the definite control of slag in a neutral atmosphere, explains in part the superior quality of electric steel. Precise and uniform chemical results can be obtained, since the process facilitates exact metallurgical and thermal control. As a result of charging cold raw materials into the furnace, uniformity of analysis is combined with extreme density of structure. In the electric furnace a wide latitude in the selection of raw materials is possible because the impurities are practically eliminated by the refining process, thus permitting close adherence to specifications for chemical composition. Large numbers of tools or other steel articles of uniform chemical composition can easily be obtained, due to the comparatively large heats in which the electric furnace steel is made—usually about six tons, whereas crucible steel is made in small charges of from 80 to 110 pounds to a pot, and since a thorough mixing of the steel from all pots is impossible, the chemical composition of crucible steel varies to a much greater extent than well-made electric steel. Electric steel is not made to compete with open-hearth in price, because it is necessarily more expensive, but to replace open-hearth where a better and higher quality steel is required.

The plant of The Hess Steel Corporation at Pennsylvania Railroad and East avenue, Baltimore, Md., is one of the largest and most successful producers of electric furnace steel in the country. This company operates two six-ton and four seven-ton Heroult electric furnaces, together with rolling mills and necessary auxiliary equipment for the production of electric steels. The plant is now operated on two shifts throughout the 24 hours of the day; about 500 men are employed, and this number will be steadily increased as conditions warrant. An ingot output of from 2000 to 3000 tons is obtainable monthly. The company

has made extensions and improvements at considerable cost since production was started in April, 1916, with a single six-ton furnace.

Electrical energy is distributed through the plant in two lines, one for operation of the various motors and for lighting, and the other for operating the electric furnaces. The electrical equipment is all protected from damage from overloading and lightning by the most improved devices for that purpose, and recording instruments permit a close watch on the cost of operation of the various units. Although this special electrical equipment was installed at considerable cost, it has made possible the most efficient operation of the electric furnaces and auxiliary equipment. The only part of the plant equipment not operated by electricity is a steam locomotive crane equipped with a lifting magnet for handling materials.

The chief advantage of the electric furnace lies in its ability to utilize comparatively low grades of materials, such as steel scrap, and although the ratio of scrap to pig-iron in the open-hearth furnace may be as high as 75 per cent., it readily approaches 100 per cent. in the electric furnace. The material used at the Hess plant consists of boiler punchings, trimmings and machine-shop turnings, etc. The material, after being mixed with the proper alloys, is refined and cast as 840-pound ingots. The melting and refining processes are closely observed and controlled by the plant laboratory. The cooled ingots are transferred to the rolling-mill building, where they are reheated in continuous and semi-continuous furnaces, and then rolled to the proper size in electrically-operated bar and billet mills. All billets are subjected to rigid inspection, and all surface defects are removed by chipping and grinding.

In rolling electric steel, lighter drafts must be taken than in



BATTERY OF FOUR NEW 7-TON HEROULT FURNACES. THE PIT INTO WHICH THE LADLE IS PLACED WHILE THE FURNACE IS BEING TAPPED IS SHOWN ON THE RIGHT.

rolling mill steel, and every effort is made to obtain the maximum physical qualities by rolling at the correct temperatures. Most of the rolling-mill products are heat-treated to improve their physical properties. Ball-bearing and other similar steel is pipe-annealed to prevent oxidization, and stock which will be rough turned before delivery is open-annealed or where exact adherence to dimensions specification is required.

During the war the Hess plant was engaged 100 per cent. on purely war orders, and many orders for non-essential uses were refused in order that the supply of war necessities might not slacken. Among the products manufactured for war purposes were alloy steel for aeroplanes; chrome-vanadium steel for shield piercing; nickel and carbon steels for gun jackets; armor-piercing bullet steel, etc. A considerable amount of the company's product was used in construction of the "Eagle" engines of the Rolls-Royce aeroplane motors, Liberty and Curtis aeroplane motors,

to business men and individuals given to deep thinking during the terrible days which are now back of us. Serious problems have been solved and difficult situations have been met with comparative ease, due to the nation as a whole being of one mind and having one purpose. You have done your part, and it has been done well, and the good influence which has reached all sections of the country through the medium of the MANUFACTURERS RECORD will be everlasting.

We are now approaching a problem sufficiently serious to call forth the best talent of the nation so as to prevent an irreparable error being made. The



COMPLETED STEEL BILLETS IN STORAGE YARD AWAITING SHIPMENT.

waiting to receive the billets and rush them to forging plants hundreds of miles away.

As to present conditions and business outlook, Arthur F. Farr, sales manager of the company, said: "The future of our company is especially bright, since during the period of the war we have established relations with prominent, forward-looking concerns, whose business is being resumed on a peace-time basis. Thus, during the war we have been supplying materials for automobile manufacturers engaged in the production of aeroplane motors and parts. The fact that we have been making quality products has established a reputation with these concerns which will be a big factor in augmenting our future sales."

### The Railroad Problem as It Affects One Industry.

C. M. TYLER, Traffic Manager Chase & Co., Jacksonville, Fla.

Your wonderful editorials and other articles in the MANUFACTURERS RECORD have, during the war period, been an inspiration

American people are now called on to decide as between Government control of the transportation lines for five years, and return of these properties during the specified 21 months after peace articles have been signed.

The citrus-fruit and vegetable industry of Florida is in need of the best article of transportation that can be delivered. Experience has impressed upon us the wisdom of healthy competition; we must have competition in transportation as well as in other lines of business and endeavor. The very principles upon which the human family exists call for a continuance of competitive effort.

We hope you will during the immediate future handle this subject in such a manner as will create a potent sentiment which will wield an influence over the Congress, resulting in legislation which will bring back competition and forever erase from the minds of politicians the idea of Government ownership.

[The MANUFACTURERS RECORD has vigorously opposed a continuation of Government control of the railroads, believing that a five-year extension, as proposed by Mr. McAdoo, would be disastrous to the country by bringing about permanent Government ownership or control.—Editor MANUFACTURERS RECORD.]

### Agent Desired in Cuba.

THE AJAX CLAY WORKS, manufacturers of fire brick and clay products, Macon, Ga., are anxious to communicate with several brokers or dealers in Havana, Cuba, with a view of making a connection for the handling of fire brick and tile in the island.



ELECTRICALLY-OPERATED ROLLING MILL FOR PRODUCING BARS AND BILLETS IN A VARIETY OF SIZES AND SHAPES.—HESS STEEL CORPORATION OF BALTIMORE, MD.

## A Message to Men\*

By B. F. HARRIS, President First National Bank, Champaign, Ill.

These are the days; this is almost the hour when the mightiest and most moving issues and interests in all the world and in all the world's history are being made up in the minds and movements of men, and so far as we of America are concerned, one man's attitude or action is largely, affirmatively or negatively, determining, delaying or side-stepping their solution.

If we follow blindly, we are called patriots; if we criticize we are said to "embarrass;" if we protest we are called partisan or worse, though constructive criticism is one of the highest forms of patriotism.

We have the President's word in his appeal of October 25, that "no scruple of taste must in grim times like these prevent us from speaking the plain truth," and the most casual observer realizes how sorely we need the "plain truth" and the facts.

Some of us have convictions and cannot express them; some of us have convictions and are afraid to express them, and the man with convictions who does not express them is still at bay—yet the light is coming.

### Dependable, Uncompromising Leadership.

The supremest need of the hour is real, unmistakable, unqualified, unequivocal leadership; courageous leadership that will lead in our true course, uncompromising with expedients, not parleying with politics and party vantage—a leadership that conceives America as a free and mighty sovereignty, friendly and neighborly with, yet independent of all, not a mere unit in a superhuman and supernational system, but above all for an American nationalism.

These are the days when, in such a cause and for such a course we need a militant citizenry, even more than a few weeks since we needed a militant soldiery.

One of our three "greatest of good men and three best of great men" who has just passed on—God make Theodore Roosevelt's message and spirit of Americanism eternal—said "there have been very, very many good men whose goodness only imperfectly atoned for their total inability to make the goodness of real use in the world."

It is up to each one of us, to every American, now to make himself, his "goodness," his voice, his convictions, not alone "of real use in the world," but specifically to see that the things Americans have always fought for are at least secure in America.

### Dangerous Possibilities.

I am not a pessimist at any point on the probabilities or the ultimate eventualities, but I am decidedly pessimistic on the immediate possibilities if we fail to take a firm, sane and instant grip on ourselves and the situation.

There will be no room for many wrecks and worries and riot if we permit no cause nor reason for them, for we must realize that in our neighbors' prosperity lies our security.

Until a few months ago our wildest imaginings would not have reached present realities, yet the Book of Revelations is open before us, all but the page of Fate.

In those brief months we have run the gamut of extremes; discovered and occupied both poles of most problems. From the devitalizing dictum to be "neutral in thought," with reference to world upheavals; from the mistaken conclusion that "with the causes and objects of this war we were not concerned," we have been hurtled to their very extremes; and our leader gone 3000 miles to "search for or explore the obscure fountains from which the stupendous flood has burst," those "fountains" which he had said "did not concern us."

### Home Problems Vital.

Meanwhile there wait here fountains that need supply; fountains that may flood us; the fountains whose pure and proper supply concerns the world scarcely less than us.

We have seen a New York tenement tramp, Trotzky, in control of the largest empire in the universe; Paderewski, the patriot pianist, gone to head Poland; a Washington dreamer at the head of Adriatic States; a harness-maker in the Hun's holy of holies with the ominous clouds of Bolshevism and the red and black

flags that would riddle civilization, threatening and tainting all the atmosphere.

The President's urgent appeal in the Mooney case; for leniency for Hillstrom, the Utah murderer-anarchist, and his pardoning of "Dynamiter" Ryan has attracted attention. It is also illuminating, yet disconcerting and disquieting, to read the statements of District Attorney Fickert, Mr. F. R. Welsh and others who bring into prominence the names of a number of well-known Government appointees and employes, from the Secretary of Labor on down, who, knowingly or otherwise, are playing directly into the hands of our most dangerous radicals, anarchists, I. W. W.'s, etc.

The problems at Versailles are not more vital than our own home problems, nor half so hard to handle by proxy or by cable.

We have seen \$100,000,000 urged and got from Congress to feed these revolutionists, who have stolen billions with which they feed us their treason. We have seen last week Burke Cochran's Bolshevistic dissertation to a Chicago meeting of reds and radicals that howled approval, declaiming they were "down-trodden," but offering a million dollars to overturn all courts and loosen anarchist murderer Mooney on the public, with organized labor joining in.

We have passed from a republic of individual initiative to a voluntary autocracy, with liberties and food measured out and all but fed to us with a spoon by government.

### Back to the Republic.

The question now—how to find our way back and in doing so to cast out all that is bad, holding fast to all that was and is good.

Back to the republic, with new ideals, must be our goal; to our republic that has stood the test longer than any present government; a republic whose certain and constant consideration is that "all men may have an equal opportunity to reach the heights of their fullest capacity for service and achievement, for intolerable is the idea of 'every man down to the level of the average.'"

Not questioning whether you spell democracy with a big or little "D," I ask you, from whose region he came and where in these days he may not rest easily, "what would Thomas Jefferson say of the present plight of this orphaned country?"—Jefferson, the patron saint from whom many who properly or improperly claim descent are so descended?

Almost 60 years ago a superman of your State and mine, Abraham Lincoln, said: "You cannot, if you would, be blind to the signs of the times. I beg of you a calm and enlarged consideration of them, ranging, if it may be, far above personal and partisan politics. \* \* \* So much good has not been done by one effort in all past time as, in the Providence of God, it is now your high privilege to do. May the vast future not have to lament that you have neglected it."

### Efficiency and Co-operation Vital.

We are less prepared to re-mobilize for peace than we were to mobilize for war, and that is saying a good deal. The spirit of war, sacrifice, morale aided the war work, and that is missing now.

Neither expense nor effort should be spared to provide employment.

We may make a choice; it is largely up to us and many like us to cause, either a protracted suspension or decline of normal activities, with all its dire results, or an era of great industrial prosperity.

Peace stocks and stores are at the minimum; public and private building and construction work has accumulated, and it would be dangerous and fatal if much of it waits in the hope that prices and wages will drop, or drop to a pre-war basis.

The wage-earner is given false and misleading encouragement when Mr. Samuel Gompers remarks "we can never again have a condition of unemployment such as that which prevailed in this country in 1893-94." It is perfectly, in fact, easily possible under today's conditions for us to have just such another unemployment

\* An address to the Kentucky Manufacturers' Association at a "Victory" dinner, Louisville, Ky.

situation, and with even more disastrous results, for natural and economic laws are again beginning to operate. This is the real message Mr. Gompers and other labor leaders and patriotic citizens must emphasize if they would save the situation.

The most dangerous economic position possible lies in the present top-record wage scale that is not, in many instances, resulting in efficient production, and such inefficiency is just as unfair and dangerous to other wage-earners as to anyone else, if they but knew it.

Faith and confidence, commercial patriotism and co-operation for continued work is business insurance, and is more necessary than ever from every producer and every consumer, for a break in the circle is fatal.

Federal, State and local governments are particularly able and by duty directed to begin the essential building work needed for our war-arrested growth and to take up the slack of unemployment.

#### The Part of Finance.

I believe the banks, trust and insurance companies recognize the importance of such a policy and will gladly finance so far as they may all reasonable undertakings of merchant, farmer, manufacturer, contractor and government.

Speaking of the banks reminds me that it is your opportunity to see that Congress changes its present attitude and permits if not orders regional reserve banks to increase their surplus from 40 per cent. of capital to 100 per cent. out of earnings. Any such change as will strengthen and increase their ability to properly extend credit is highly desirable. Remember, too, that at least \$11,000,000,000 more Victory bonds must be sold and heavy taxes paid in 1919.

#### Production Is Life Blood.

Every citizen as he or she labors for self-preservation that, in turn, is involved in the preservation of this republic, must hold in mind that all of us, everywhere and in every phase of life, live on production, for wages are paid out of product.

Thus each and all benefit from maximum production when it is obtained, of course, without wrong and justly distributed.

The basis of a better life is not rhetoric or theory, but a better and certain earning capacity and the opportunity to exercise it. This is an elemental fact that we must spread widely.

With this country having a greater farm and factory production; that is labor and capital than home needs require, what are we to do?

The answer is easy and plain: "Hold all we can of our own and get all we can of foreign markets."

#### Just Common Business Sense.

How to do this is just as plain but not so easy. First, executive and financial efficiency in agriculture and industry supporting a wage based on efficiency and production and increasing as efficiency and production increase, with the hour-day, where practical, set and maintained honestly from a physical and welfare basis and not as a sham method of raising wages, with the old hours maintained or exceeded.

Second.—A tariff or trading policy to be worked and fought out between us and our neighbor nations, and not between our political parties, for the tariff should be for us just as practically and dependably contrived as our financial and fiscal policies and regulated to comply with our supply and demand just as accurately as do interest and exchange rates, for impending events are certain to make it the most real and vital situation in our lives.

Third.—The foreign markets we must have are only reached by a merchant marine, and we must make our inadvertent program the greatest actual shipping program in the world. But ships do not make commerce or a profitable one and for us, any more than farms or factories mean production unless operated under an efficient and economic provision and guidance that will reach the wide markets that wait on a production that comes from producers, whose ingenuity and efficiency can and must justify the best wages in the world, when aided by an equally efficient and effective tariff. Of course, government must co-operate with production in the same spirit as production co-operated with government during the war.

#### Free Trade and British Labor.

In the year before the war Lloyd George told the House of Commons that of 425,000 adult deaths, 350,000 left no property;

13 out of 17, probably all of labor, saved nothing; that 2,000,000 British people were that year supported by public charity; that the average wage, skilled and unskilled, was \$6.43 per week; that their annual emigration equaled the standing army; that one out of every four deaths occurred in a workhouse, asylum or hospital.

That was the actual social and economic condition in the British Isles when the war came in 1914, and why? Because England was a free-trade nation, trying to fight the cheap goods with which Germany flooded her, because the English laborer feared a tariff would raise the price of his food and not raise his wage.

Do you believe that the self-governing Dominions of the British Empire, who are sharing with the Mother country the blood and money cost of this awful war, are not henceforth to be tied closer to her; to have a fair voice in the Empire's Parliament, and that one of the least of the natural results will be a modern British Federal tariff, which will hold their own market of 420,000,000 consumers as much as possible for their own producers?

Lloyd George said to capital: "You shall not be penalized and plundered; do your duty by those who work for you, and the future is free for all the enterprise or audacity you can give us." To labor he said: "You shall have justice; you shall have fair treatment, a fair share of the amenities of life, and your children shall have equal opportunities with the children of the rich."  
\* \* \* Labor must have happiness in its heart."

#### Bad Faith With Railroads.

The railroad situation is one of our greatest menaces. Adequate and reasonable service, always at least abreast of our needs, is the first consideration, but scarcely second is that of ownership.

In spite of a public sentiment largely opposed to governmental ownership, and in spite of the 18 months return provisions of the law, the President tells us he is prepared to make no announcement, though shortly thereafter the Director-General practically demands five years' Government operation or immediate dumping of the mess into the laps of the stockholders.

In other words, after the method of the gun-at-your-head Adamson law tactics, "you can let us run the roads till, among other things, we get a firm labor and political grip, or you can take confusion and panic now." Mr. McAdoo refers to the question as a "hot poker," yet we know of no one who had more to do with heating the poker nor of arbitrarily offering the "hot" end alternative to the public.

Above all, government must be honest. The railroads were asked and turned over not for an experiment in political ownership, but as a war necessity, and because the very law the Government had demanded and stringently enforced would not permit the railroads to do these practical things. Was it a thin subterfuge, bad faith, as in the case of the cables?

A confiding and patriotic public is apparently offered as short-shrift as are some of you manufacturers and contractors on cancelled war contracts.

It may be good politics to kill off a political or business executive by giving him all the rope he wants without "nagging or tensing" him, as the opposition recently suggested, but the citizen stockholders, the men whose business is being wrecked, are more interested in preserving the business than in assisting the boss to hang or adjourn himself.

#### World Peace and Human Nature.

Likewise we are more and first concerned with an early world peace that will permit the earliest and completest possible army demobilization, and, by the same token, the earliest possible remobilization for peace and reduction of the enormous interim expense.

If we are to go into all the formalities of the league plan, formal and permanent recognition must be made of our Monroe Doctrine, just as England will properly perpetuate her self-defense through sea dominion. Just as our Monroe Doctrine provides for non-interference here, just so there must be no calling upon us or our soldiers to mix in European and Eastern politics except in the gravest emergency.

Benjamin Franklin said "we must treat the nations as our neighbors," but nowadays, with all our altruism, we might well reverse this sentiment and show more solicitude for home folks.

There is just as much human nature in the world as al-

ways; more of it, in fact, and more active and dangerously feverish from a world debauch that has not culminated.

#### One Language and No Aliens.

We want but one language and one flag in this nation as of right and as the only practical route to Americanization.

We would withhold immigration for a time and closely scrutinize it at all times, and we want to see deported every alien enemy whose conduct was such as to warrant his recent internment by our Government.

Remember that the citizen, even the native-born, who arouses a malignant class hatred; who is alien in word and act to our American ideals and ideas of government, is the worst of all, for his citizenship makes him a TRAITOR as well. Lock him up!

We must recognize with Oxenstiern "with how little vision the world is governed;" widen our vision, and learn some of the lessons brought home by the war.

#### Protect Unorganized Labor.

Only 3 per cent. of our population and not 8 per cent. of those who are eligible to union labor membership are organized, and most of those not organized do not want to be. It is our duty, the public duty, to care for these and protect them in all their rights and privileges, for no class should be forced to organize to get its just deserts.

Are you helping as an American, as a far-sighted employer, as a part of a human program to organize the thought and hearts and patriotic spirit of your employees and co-workers, or are you letting some one else with sinister and antagonistic motive do it for you?

Organized labor almost always fails to combine a full consideration of the rights of all or any others with their insistence on their own rights.

The United States Employment Service is today the most effective promoter of unionism in the United States, and is asking Congress for \$14,000,000 to continue a proselyting work that is no more a part of its war function of mobilizing labor than it is a function of the Government Railroad Administration to proselyte for political ownership.

These are only two instances indicating to what length politicians might go if we were to embark on a system of public ownership, which quickly results in political possession of business and enterprise.

#### Sentiment in Business.

On my way here I read in the Cincinnati street car advertising racks this simple yet epochal sentiment: "The Pollak Steel Co. expresses appreciation to its 2000 employees for their honest endeavors during 1918 and assures them of its continued co-operation during 1919."

That is all I know of this concern or its fellowship with its 2000 employees, but you may be assured that it impressed me as it must every man with additional hope for human brotherhood, interest and service. If I wanted to get steel or a steel job, I know I should go first to that firm, and I have enough faith in men and manufacturers to believe that they are doing the right thing and their part toward their men and their customers, and that a similar sentiment comes in reciprocation.

A few years ago there was as little sentiment in business as of business in politics, but this is another world now, and I say to you tonight:

"Show me the business man or institution not guided by sentiment and service; by the idea that 'he profits most who serves best,' and I will show you a man or an outfit that is dead or dying."

#### Business in Politics.

So, too, politics must measure up to the square deal, for politics is the biggest kind of business, for its business is to give us the kind of government and justice and fair play that we fight for, and so business and sentiment and service must likewise dominate politics, and each of us must see that it does.

As we in America must have opportunity for a maximum of individual and collective effort in our several business enterprises,

so likewise must we employ that maximum of effort in clean politics and local government, and the rest will follow.

#### What of the Morrow?

Out in Flanders' fields at the head of the grave of a British soldier is this epitaph:

"When you go home tell them of us and say—  
For their tomorrow we gave our today."

The question you and I and every citizen must answer is, "What are we to make of the morrow for which so many of our own boys also gave their today?"

Are we going to give more and less grudgingly of our today and as generously of our time and ourselves as of our financial aid for the morrow of our children and our co-workers and the great new world that is growing up about us?

"One ship drives East, another drives West,

While the self-same breezes blow;

'Tis the set of the sails, and not the gales,

That bids them where to go,

Like the winds of the sea are the currents of earth,

As we journey along through life;

'Tis the set of the soul that decides the goal,

And not the storms that are rife."

God grant that every citizen may set his soul aright, for so is America's soul set!

#### Important Developments Planned for North Carolina.

Raleigh, N. C., January 29.—[Special.]—It has been definitely decided that Durham will push its million-dollar street-improvement plans, beginning at once and not letting the high cost of material stand in the way. The county of Durham will tie in with this important work with highway development.

The definite information that Camp Bragg, at Fayetteville, is to be retained for an artillery school of fire for the United States army fixes one of the greatest developments in the entire State. Secretary H. V. D. King of the Fayetteville Chamber of Commerce informs your correspondent that the camp, which was originally designed for the operation of six brigades of artillery, will be completed to provide for at least two brigades. Including auxiliary units, there will be at least 15,000 men in this camp at its beginning of operations.

The canalization of the Cape Fear River from Fayetteville to Wilmington is now 82 per cent. completed. Only a relatively small amount of dredging is now needed to give a fine channel with a minimum depth of eight feet all the way. Fayetteville will provide the warehouse and wharf facilities to take care of the river traffic, and an engineer employed for this purpose is now making the plans and specifications for this work. Fayetteville up to a period after the Civil War had important river traffic. For a century it was one of the three most important river towns in North Carolina, the two others being Wilmington and Newbern, and it had a great trade with interior North Carolina.

Fayetteville is confidently looking forward to proper freight rate adjustments for this territory also at an early date, and with these secured is to be chosen as the location of several industrial plants.

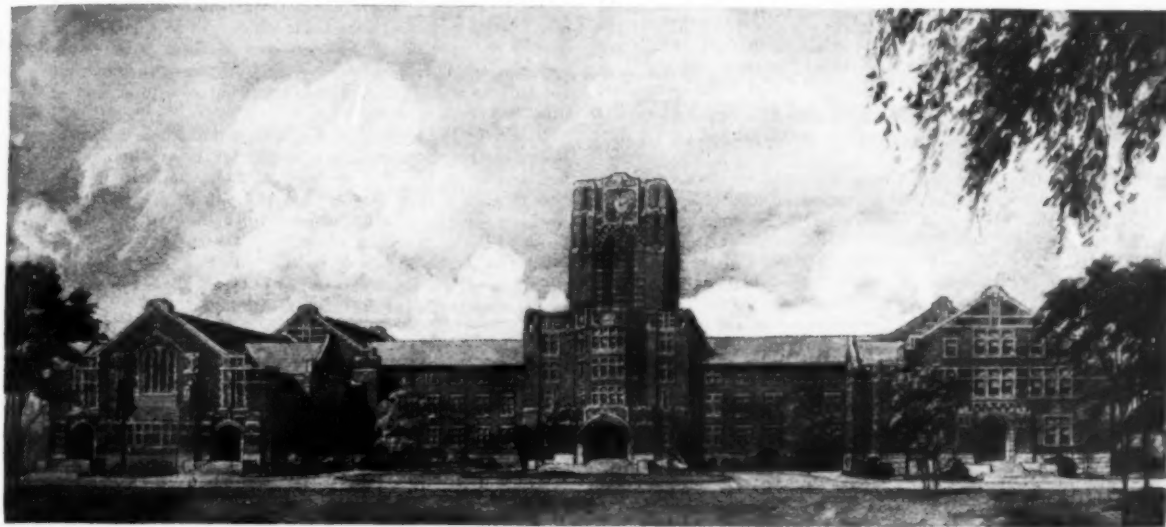
#### Demopolis Cement Plant to Be Greatly Expanded.

Demopolis, Ala., February 1.—[Special.]—Capitalists from Iowa have purchased a cement plant built at Demopolis a few years ago by British interests, and will make it one of the largest cement factories in the South. A corporation with a capital of \$2,000,000 is now being organized for that purpose. The new plant will be controlled by the same interests that own a large cement manufacturing plant at Mason City, Iowa.

The new factory will be built on the banks of the river at this place, so as to get the benefit of both water and rail transportation. The Government's new Warrior River barge line will afford direct water transit to Mobile and New Orleans and other Gulf coast points.

Raw materials used in the manufacture of cement, with the exception of gypsum, are to be found in abundance in this locality. The gypsum, which is used for preventing cement from hardening too fast, will be brought from West Virginia mines.

## UNIVERSITY OF TENNESSEE TO EXPEND \$1,000,000 ON NEW BUILDINGS.



MAIN BUILDING TO BE ERECTED AT UNIVERSITY OF TENNESSEE AT A COST OF \$500,000—WILL CONTAIN MORE THAN 100 ROOMS. MILLER, FULLENWIDER & DOWLING, ARCHITECTS, CHICAGO.

Knoxville, Tenn., January 23.—[Special.]—With a view of breaking dirt in the early spring, plans have been drawn and accepted for three of the series of new buildings for the University of Tennessee—the administration, the armory and an agricultural structure. The combined estimated cost of the three will be approximately \$750,000. This is in furtherance of a plan to expend \$1,000,000 on new buildings, realization of which plans means a much greater University of Tennessee.

The main building will be erected on the top of university hill and will occupy the ground now taken up with the East, West and Old colleges. It will be a three-story red brick, containing a few more than 100 rooms, in addition to a finished basement for mechanical operations.

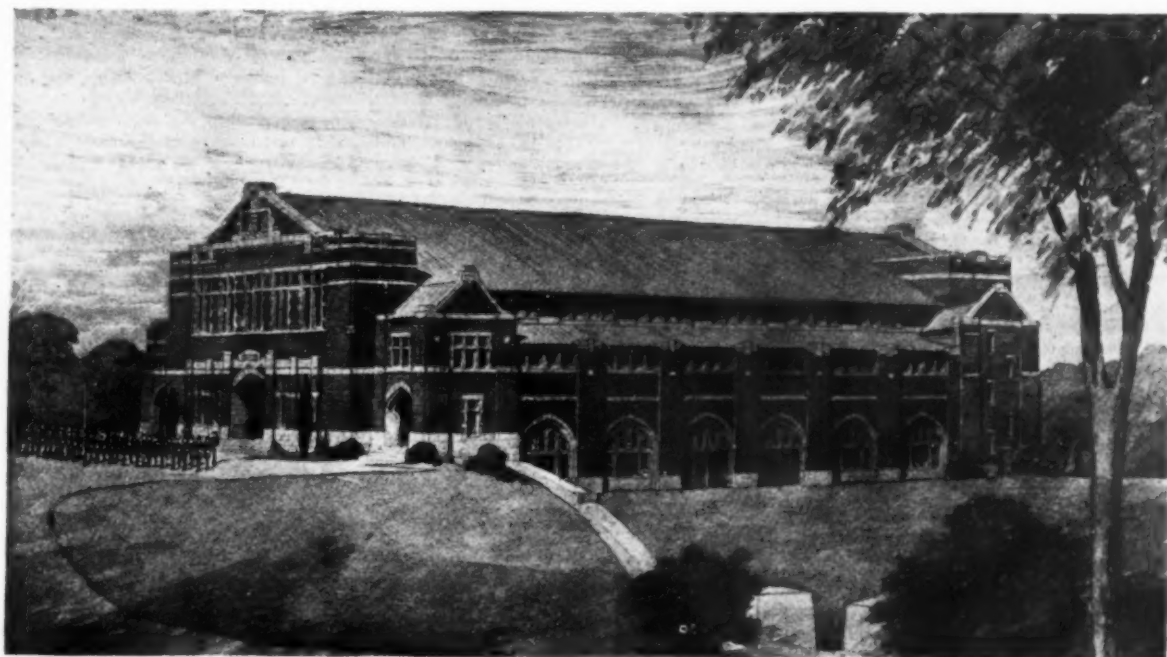
The apartments on the main floor of the main building will in-

clude 42 classrooms, 42 professors' studies (joining each classroom), two large lecture-rooms or auditoriums for special occasions, and smaller rooms for various uses. In the big part of the tower of the main building provision is made for halls for literary societies, cloakrooms and alcoves.

The east wing of the main building will be used for business offices, offices of the president and for various committee necessities. In this wing also will be placed a bookstore and postoffice.

The west wing will be used as an auditorium and chapel. The apartment will seat approximately 1000 persons.

The armory and gymnasium, to be erected at the south end of the athletic field, will cost approximately \$150,000. When used for lectures or special occasions the seating capacity of this building will be 2000. The plans are so arranged that the structure



ARMORY AND GYMNASIUM AT THE UNIVERSITY OF TENNESSEE—ARCHITECT'S PLANS CALL FOR AN EXPENDITURE OF \$150,000 ON BUILDING. MILLER, FULLENWIDER & DOWLING, ARCHITECTS, CHICAGO.

may easily be turned into an open-air theater by opening the swinging windows. It is planned to use the armory during the summer months for accommodation of the Summer School of the South, usually attended by about 2500 teachers from all sections of the South. The armory and gymnasium will also be of red brick. One of the two floors will be fully equipped with the most modern athletic equipment.

Approximately \$100,000 will be expended on an agricultural building to be erected on the university farm, located on the outskirts of Knoxville.

The balance of the \$1,000,000 appropriated by the Legislature will go toward establishing and equipping an agricultural station in Middle Tennessee and on improving the medical department buildings of the University of Tennessee, located at Memphis.

A sentimental feature of the changes at the University of Tennessee will be the preservation of Old College building on university hill. Old College building was erected in 1826, and at that time was noted as one of the finest Southern college buildings. It will be removed to another part of the campus.

### Five Southeastern Ports Complete Organization to Promote Foreign Trade and Commerce.

Jacksonville, Fla., January 31.—[Special.]—Definite steps toward the establishment of permanent trade lines between ports of the South and Central American countries were announced today, when details of the formation of the South Atlantic Maritime Corporation were made public.

This corporation, composed of the five leading ports of the South Atlantic—Jacksonville, Savannah, Charleston, Brunswick and Wilmington—has been organized and its officers elected and has already made plans for securing vessels with which to start the service. The scope as embodied in the plans of the ports of the Southeast are the most ambitious ever attempted by any group of cities, and demonstrates that the South fully realizes its wonderful opportunities through reciprocal trade with the nations to the South of the United States.

Heading the corporation in the capacity of president, Mathew Hale of Boston is president of the Liberty Shipbuilding Co. of Wilmington and Brunswick. James Sprunt of Wilmington is vice-president; R. G. Rhett of Charleston is vice-president; George F. Armstrong of Savannah is vice-president; F. N. D. Strachan of Brunswick is vice-president, and Walter F. Coachman of Jacksonville is vice-president. W. M. Williamson of Savannah is treasurer. D. H. Lippett of Wilmington is secretary, and B. R. Kessler of Jacksonville is assistant secretary.

The financing of the proposition has been perfected, one-fifth of the stock in the company being held by each city. Regular steamer sailings will be maintained to ports of Brazil, the Argentine, Central America and the West Indies. The first sailing will be in March from the port of Savannah, at which time all officials of the company will meet in that city to celebrate the occasion.

The formation of the corporation and establishment of these lines is the concrete development of a dream of Southern commercial activity. Trade relations with the ports of the South with the opening of new and broader fields for expansion of Southern industries and development of ports of the Southern section have been a topic of conversation, suggestion and conjecture for months, and with the official announcement of this great movement on the part of the ports of the Southeast manufacturers and business men throughout the Southeast feel that a great future is in store for this section.

### Southeastern Commercial Association to Be Organized.

Savannah, Ga., January 29.—[Special.]—To form an organization modeled after the lines of the United States Chamber of Commerce, Judge George T. Cann today issued an invitation to the presidents and executive secretaries of the boards of trade of Jacksonville, Brunswick, Charleston and Wilmington to meet in Savannah February 15 and formulate plans upon which the proposed organization is to be based.

It is the purpose to include the States of Georgia, Florida, South Carolina and North Carolina in the organization, the scope to be inclusive in the way of developing natural resources and promoting industrial, agricultural and commercial progress.

This step may rightfully be said to have grown out of the

activities of the South Atlantic Maritime Corporation in establishing a steamer line to be operated from the five ports mentioned to Cuban and South American ports. The opening of the South Atlantic ports to the trade which will be developed has also opened the eyes of the business men of these ports to the vast opportunity for new industries in connection with that trade, and not only to manufacturing industries, but also to greater agricultural activity.

It will be the purpose of the new organization, which is to be known as the Southeastern Commercial Association, to awaken the interior to the new avenues of trade that will be developed and to gain in the organization the power of unified action in working for those things which will operate to the common interest of the section as a whole.

Judge Cann, who has taken the initiative in this movement, is president of the Savannah Board of Trade, and the meeting will be held at the Board of Trade rooms in this city.

### Effective Publicity for American-Made Dyes.

For the purpose of directly educating the public as to the quality and scope of American dyestuffs, the National Aniline & Chemical Co., which has been one of the progressive companies of the country to establish a wide range of dye manufacture since the war, has gotten together a comprehensive exhibit of American dyestuffs and materials dyed from them, and is making exhibits of these in leading department stores in the country.

So far exhibits have been made in New York, Boston, Worcester and Springfield, Mass.; Newark, Syracuse, Pittsburgh and Washington. And the next exhibit will be made in Chicago.

At these exhibits daily lectures are given regarding the development of American dyestuffs, so that those visiting the department stores are able to become somewhat acquainted with the remarkable achievements we have made in dyestuff manufacture.

This kind of work will undoubtedly go far towards causing the American people to appreciate the high quality of dyes made in this country, and serve to remove the prejudice that seems to have existed in some quarters that American dyes could not be made as good as foreign ones. It is a known fact from tests that have been made that American-made dyestuffs are the equal and in some cases superior to any dyes that we imported before the war.

In undertaking publicity work of this kind, the dye manufacturers are laying a foundation which will be of great value to them in putting dye-making in this country on a firm basis. It will be important, however, for American dye manufacturers to undertake publicity in the broadest possible way, in order to achieve the results that will be necessary to thoroughly acquaint the American people with the value of American-made dyes. This publicity can find expression both in exhibits of this kind, in strong, educative advertising in representative journals and in other promotive ways that will bring the fullest knowledge and appreciation of the American people as to the wonderful results that have been accomplished in this country in the manufacture of dyes.

### North Carolina Plans New Agricultural Building and Memorial Edifice, Each to Cost \$250,000.

Raleigh, N. C., February 3.—[Special.]—In accordance with a recommendation in the annual message of Governor Thomas W. Bickett and a recent special communication, a bill has been introduced in the Legislature to erect at the State College of Agriculture and Engineering, near Raleigh, a building for the State Department of Agriculture and also to accommodate the extension workers who now have their headquarters at the college. The proposed building would cost \$250,000. It is believed that concentration of all agricultural effort at the college will be of decided advantage. The Governor recommends that all home demonstration work now done in the Agricultural Department building in Raleigh be concentrated at the State Normal and Industrial College at Greensboro.

Another recommendation is to erect on the lot occupied by the present antiquated Agricultural Department building in Raleigh of a great memorial building in honor of the soldiers who represented North Carolina in the European war, this to contain records, relics and souvenirs; also the material now preserved in the North Carolina Hall of History. A bill has been passed for the memorial building, funds to be provided by gifts, bequests, etc. It will cost about \$250,000.

# Hundreds of Millions Invested in Texas Leases and Drilling Operations

OUTLOOK FOR VASTLY INCREASED ACTIVITIES WITH ADVENT OF SPRING—NETWORK OF GOOD ROADS PLANNED FOR EARLY CONSTRUCTION—INTERESTING FEATURES OF DEVELOPMENT IN NEW FIELD.

[Editorial Correspondence Manufacturers Record.]

Dallas, Tex., January 31.

From one of the poorest parts of the State so far as assessed valuations are concerned Central West Texas has now become one of the richest. It is the expectation of those who keep statistics on the production of the various fields that the January totals will show 120,000 barrels daily production for Central West Texas. This, with the additional value of all lands due to the demand for leases, has brought about a situation which will make it possible for West Texas to build a great many roads, and the need for them is apparent, both for agriculture and the new oil industry. Oil is evidently to crowd cotton for first place as the money crop of Texas. With high prices and a little less than average production the cotton crop of Texas is worth from \$500,000,000 to \$600,000,000. There are other oil fields in Texas beside the new ones in Central West Texas, and their annual output is rapidly coming to the point where the money value of oil will be half that of cotton.

It is estimated that about a quarter of a billion dollars has been invested in leases in the Central West Texas oil territory, most of this money being for lands that can be designated as wildcat propositions. About one half of the lease money has been paid out by large companies. Probably 10 companies would account for \$100,000,000 worth of leases. But that does not cover half the land under lease, nor even a fourth of it. Some of the large companies, which have as much as \$5,000,000 invested in West Texas leases, have not begun to drill their first wells. Some of them may not drill for a year. But the money they have turned loose in Texas is very real money and is having a stimulating effect upon all lines of business.

The counties affected by the new oil development are looking forward impatiently to spring weather and the possibility of beginning work on public roads. West Texas is strongly behind the proposal of the Texas State Highway Commission to issue \$75,000,000 worth of bonds, pledging the revenues from automobile licenses to provide interest and sinking fund. This plan would not exhaust the funds available for maintenance, because one-half of all the license fees collected remain in the treasury of the county where they are paid. It is probable that the newly developing counties of West Texas will receive early attention if the legislation upon which this bond issue would be based goes through at the present session of the Texas Legislature, as seems probable.

Tarrant county (of which Fort Worth is the county seat) is planning to begin the work with a bond issue of \$1,500,000, which is to be voted on within two months. When this carries—as it unquestionably will—the State and Federal Governments will grant an additional total of \$139,000, and the construction of concrete highways will begin. It is the general plan that other counties shall pick up the work at the Tarrant county line.

Announcements continue to be made daily of the new buildings and new business enterprises throughout the district, all having more or less direct relation to the development of the oil fields of Central West Texas.

The shortage of houses and sleeping quarters of any sort continues severe both in the oil fields and in Dallas and Fort Worth. The embargo on all except urgently needed supplies for the oil boom towns has acted as a bar to building activities on the scale dictated by the demand. There is a great deal of building under way in Fort Worth, but it is so far from adequate that William Monig, president of the Fort Worth Chamber of Commerce, is forming a \$300,000 corporation to build two apartment houses and some cottages. The Dallas Chamber of Commerce is forming a \$500,000 corporation to build rental houses.

At the earnest request of postal officials at Fort Worth, who find their quarters inadequate as a result of the growth of busi-

ness, due both to oil development and the cantonment at Fort Worth, a bill has been introduced in Congress to appropriate \$1,500,000 for a new postoffice here. Several new eight-story buildings are to be constructed on the main business streets, work to begin within three months.

The Roderick-Lean Manufacturing Co. of Mansfield, Ohio, manufacturers of harrows, is to construct at Fort Worth a large



OIL WELLS DRILLED ON RAILROAD RIGHT OF WAY.

distributing house to supply Texas, Oklahoma, Arizona, Louisiana, New Mexico and old Mexico.

The Pringle Powder Co. of Bradford, Pa., is to have a large distributing plant in Fort Worth within 30 days. This company makes high explosives, and is planning to supply the oil fields with nitroglycerine for the shooting of wells. Some manufacturing will also be done in Fort Worth.

There is an index to the coming development of Dallas, Fort Worth, Wichita Falls, Cisco, Brownwood and other towns and cities affected by the opening of the new oil fields in the increasing demand for acreage near the cities and the buying of suitable locations for warehouses and manufacturing plants. In the majority of instances these sales are negotiated through agents who have nothing to say about the purposes of the buyers. It is probable that in a great many instances the agents do not know what uses the lands are intended for. Several deals involving as much as \$100,000 each have been made recently near Fort Worth and Dallas.

The rush of refineries continues. Wichita Falls now has three refineries in operation, with eight others building or under contract to build. Some of these will get much of their business by selling their fuel oil in the oil fields, where it will be used under boilers. At present there is considerable use of gas under boilers, but this is not always easily arranged, in spite of the fact that gas is plentiful. It calls for the laying of pipe, and pipe is scarce.

Letters from the larger steel manufacturers of the country to the larger producers in the Texas oil fields indicate that the steel interests are expecting this field to give them very large orders for steel plates for tankage, and they are unquestionably correct in their assumption.

Relief for the transportation difficulties of the new oil fields is promised through the promotion of a new railroad in that territory. T. J. O'Donnell, president of the Midland and North-

western Railroad, will submit propositions to the towns along the route which he has outlined as follows: Stephenville or Comanche to Breckenridge, crossing the Texas and Pacific line at Eastland, Ranger or Cisco. A glance at the railroad map will make clear the usefulness of such a road, and Mr. O'Donnell says it ought to be a paying proposition from the day it goes into operation.

The most novel proposition in the way of transportation comes from Wichita Falls, where G. C. Wolf is organizing a company to establish aeroplane passenger service from that city to all of the oil centers as a start, and he expects to ask for mail-carrying contracts as soon as a few successful trips are made. Present progress, he said, indicates that the company will be financed in a few weeks.

Work in the oil fields has been much delayed by seasonal bad weather during January. About the middle of the month there was snow. Later there was another heavy snowstorm and severe freeze. During the week beginning January 19 there were heavy rains. The dirt roads are in bad condition and the automobile trucks and wagons which are used for most of the hauling cannot negotiate the difficulties. Normally the roads should clear up in March. The normal rainfall for the entire Central West Texas field is light and the dirt roads in summer are ideal. Work can then go forward almost regardless of the railroads, and it will do so. It might also be remarked that the oil territory will then blossom forth as the greatest market for automobile trucks in the world. Some trucks are already being ordered, and automobiles are selling at a premium because the orders cannot be filled.

The most notable recent development in the Burkburnett oil field is the striking of a 15-foot oil sand at 580 feet at the Burk-Wagoner Company's well six miles northwest of Burkburnett. This well is more than five miles from any that has shown gas and oil. No definite statements have been made about it, so that its production can scarcely be estimated at present; but there has developed a new rush for leases in that vicinity.

North and northwest of Burkburnett considerable exploration is being done. A number of Oklahoma men have filed claims on the southern half of the Red River bed near Burkburnett. It is their contention that the north half of the Red River bed

belongs to Oklahoma, but that the south half of the bed is Federal, and they have filed under the Federal law. This will doubtless lead to litigation; but in the interim it is their hope that it will lead to oil. This is a part of the new development in Southern Oklahoma across from the new Burkburnett field.

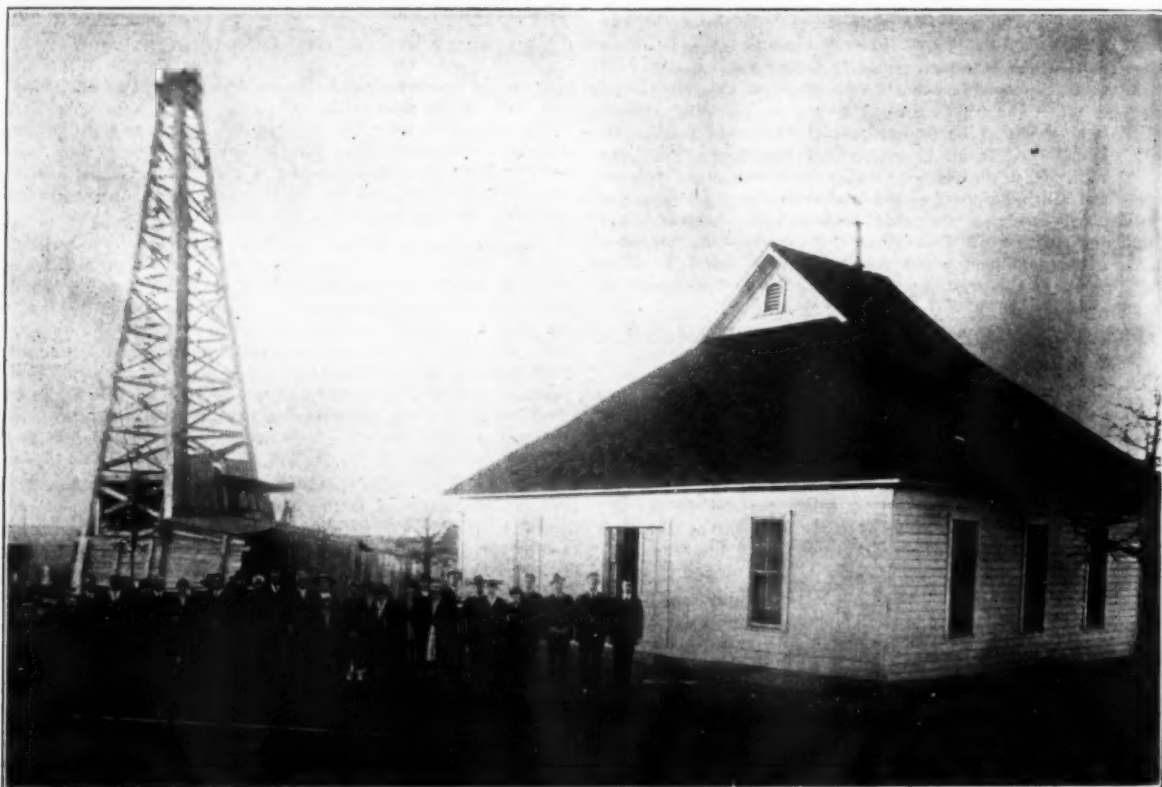
Arrangements are being made by Texas capitalists who have holdings in the Petrolia fields to drill some deep test wells in the hope of finding the same sand that produces so liberally at Burkburnett.

In spite of the use of the Burkburnett pipe line facilities to their capacity, there is still a severe shortage of tankage there, and production is being slowed down in consequence, just as it is at Ranger, where there are more than 70 wells on the sand and not drilled in until arrangements can be made to care for the production. One feature of the development of these two great pools is the small amount of waste that has taken place. There have been a few more wells brought to the sand at Ranger recently, but nothing is known as to production, because they are not drilled in.

Through mud and slush and snow the little companies continue to have their drilling machines hauled overland to begin operations without waiting for the better weather. This rush for the fields is accounted for in part by the desire to sell stock.

Higher prices are being paid for leases than in any other field ever developed. The cost of drilling wells is also extremely high. The cost is not so high in the Burkburnett field, because oil is found there at a much lesser depth than about Ranger or in Comanche county. Thirty thousand dollars is about the minimum anyone can figure on as the cost of drilling a well around Ranger or in Comanche county. From that figure the cost ranges on up to \$50,000 or more. Drillers receive \$11 a day, and tool dressers \$10 a day. Present estimates by experienced oil men are that \$100,000,000 is the minimum sum that will be expended in drilling in this field in the coming 12 months.

At present most of the drilling will be done by the big companies, but the small companies are finding a ready sale for their stock and are already becoming an important factor in the drilling operations as well as in the leasing. Texas is prosperous, and the stock promotion companies find little difficulty in disposing of their securities. A recent Sunday issue of one



MERRYMAN BAPTIST CHURCH IN RANGER FIELD AND CONGREGATION OF 20 MEMBERS—\$300 A DAY ROYALTIES RECEIVED FROM WELL ON CHURCH LOT.

Fort Worth newspaper disclosed the advertisements of 52 companies offering a total of a little upwards of \$5,000,000 in stock. Nearly all of these companies will drill somewhere. Nor do they represent by any means the total of companies operating in the field on money obtained by the sale of stock in small denominations.

There has been a great deal of criticism lately in Fort Worth against these heavy offerings of stock through the newspapers. Even the ministers of the city united in issuing a warning to buyers to exercise the greatest care. The following day nearly all the companies offering stock used the ministers' interviews in their advertisements, declaring that they invited the fullest investigation and that they endorsed the statements of the ministers.

Some idea of the extent of the wildcatting can be gathered from the fact that wells are either being drilled or under contract to be drilled in 139 counties. The development in Central West Texas has had the effect of stimulating development in parts of the State other than the four proven fields. Down in McMullen county, due south of San Antonio, the Grub Stake Investment Association has just brought in a gas well producing 40,000,000 feet of gas. A few more such wells would give the city of San Antonio natural gas. What that would mean with San Antonio's large supply of cheap Mexican labor and its nearness to the Mexican market can readily be understood, and a great deal of interest is being taken now in that section. There are a few scattered shallow wells with small production in McMullen county, so that the well which has produced this gas was a wildcat among wildcats.

With such news as this coming in every few days the enthusiasm of the people for oil stock is not inexplicable. Moreover, they have before them the example of the Hog Creek Oil Co., which brought in the discovery well in Comanche county. That was strictly a wildcat gamble, with stock selling at \$100 a share. Now that stock is quoted at \$4500 a share.

Those who got in on the ground floor in the early organizations in Burkburnett have also done well. Not long ago, however, the merchants of Fort Worth joined in a complaint that the people were buying oil stock and not paying their bills.

A reflection of the intense interest in oil development in this part of the State is furnished by the recent announcement of Southern Methodist University of Dallas of a series of lectures on oil geology. Recently the statement was made in Wichita Falls that school teachers were having difficulty keeping the pupils from discussing in the school rooms the value of different oil stocks and the relative merits of the leases of the various companies. Some of these children, as well as their parents, own stock in the companies and some of them have made fortunes on their investments.

Probably there never was such a wildcatting fever in any field in the world as there now is in Texas, and much of this is based upon the reports of geologists. Texas has been backward as a State in the matter of geological surveys, in spite of the fact that nearly every survey ever made of any part of the State indicated great wealth in minerals.

Twenty years ago geologists said the formations in Central West Texas indicated that there was petroleum under the ground. But there have been times during the last 20 years when it appeared that petroleum was a drug on the market and might remain so for a long time. With the coming of the world war the situation changed, and this change has had a great deal to do with the renewed interest in West Texas. Twenty years ago the transportation facilities of that section would not have permitted much development, even if the oil had been found. Nor were the refineries sufficiently close.

An interesting story comes from Burkburnett to the effect that one driller there has gone through 85 feet of oil sand and then struck a hard rock. This is most unusual, for salt water is generally under the petroleum, and this announcement adds to the interest in the geology of the Burkburnett field. Already it has shown a remarkable production in spite of what the oil men considered too many wells in a restricted territory. It will be recalled that Burkburnett was originally a townsite divided into lots, and when oil was found nearly everyone of these lots was made the basis of a company drilling for oil. The prediction was made that the flow would stop sooner than it should ordinarily, because the field was being drilled to death. But the flow of wells has actually increased recently in numerous instances, and this led to talk about a "mother pool" which is

feeding the Burkburnett pool. Now the finding of rock instead of salt water under the pool is bringing about still more speculation. But the geologists confess themselves about as puzzled over the formation as anyone else. There is a general agreement, however, that this at least indicates that all of the oil will be gotten out since there is a bottom impervious to oil and water.

### Mississippi Hogs Bring Record-Breaking Prices.

Jackson, Miss., January 30.—[Special.]—Mississippi's claims to first place in the South as a hog-growing State took a leap upward when a new world's record for average price per hog was made at Fernwood recently at a sale attended by hog breeders from all over the United States.

The Enochs Farms at Fernwood began breeding fine Duroc Jerseys only 10 months ago. On January 16, thirty hogs were sold there for a total of \$25,500, an average of \$672.57, the highest average price on record prior to this sale being \$510.

Nineteen sows brought an average of \$907.40. One of these sows sold for \$2100, to make her home on another Mississippi stock farm. One went to Nebraska for \$2075, and three others brought as much as \$2000 each.

A few days before the Enochs sale was held, 45 head of Durocs at the White Farms, near Columbia, brought \$16,000, and the Pine Crest Farm in Tallahatchie county recently closed a sale that brought almost as high an average as these two, with many individuals bringing \$2000 or better.

At the Pine Crest sale one 10 months' old boar brought \$2300, the record price for a pig of this age. His little mate brought \$500. The mother of this high-priced Duroc was bought by her present owner less than a year ago, and he has netted \$1810 from the sale of her pigs, in addition to retaining possession of the sow and seven pigs of her latest litter. Counting these, his investment in the one sow has netted him about \$3600 in less than a year.

These unusual prices clearly show that the South is raising champion hogs, and that instead of the Southern breeder having to seek the Middle Western owner, the situation is reversed. Some of the finest Duroc blood on earth is in Mississippi herds, and breeders from the great hog-raising Middle West are using Mississippi herd leaders, when a decade ago a pure-bred Duroc hog was a curiosity in Mississippi.

It is not alone from the sale of this fancy breeding stock that the State is deriving a reputation for producing hogs. One county increased its hog shipments from \$24,000 in 1915 to \$218,000 in 1918, and this is indicative of shipments from this State to the great markets, especially during the war period.

The business is firmly established in all sections. It is interesting to note that the Enochs and White sales took place in South Mississippi, in the great cut-over pine section.

### Special Commission Appointed to Work Out Broad Plan for Improvement of Mexican Railroads and Highways.

Monterey, Mexico, January 30.—[Special.]—To better the railroad service of Mexico the Department of Communications and Public Works of the National Government has appointed a commission to take charge of the improvement and maintenance of the several lines. This commission will also exercise similar authority over the highways and the telegraphs. Its first work will be to make a complete survey of the railroads to determine their exact needs in the way of physical betterment, particularly as to new rails, lowering of grades and the purchase of rolling stock. This work will be done by a corps of engineers.

The shortage of equipment is becoming so acute on some divisions of the National Railways of Mexico that freight and passenger traffic is almost entirely suspended. All trains on the Monterey-Tampico division are suspended except a mixed freight and passenger train making a trip between the two important terminals three times a week. Formerly there was a double-header passenger service, besides heavy daily freight traffic.

The new commission is also preparing to begin the construction and repair of highways throughout the country. It is arranging to divide Mexico into road districts and to appoint supervisors in each district who will be required to look after the improvements and construction work in their respective subdivisions.

## The Situation in Mexico

[Special Correspondence Manufacturers Record.]

Washington, D. C., January 23.

The other day it was announced that President Carranza of Mexico interfered to prevent the Mexican Congress from passing a resolution congratulating President Wilson upon his international policies. He sent for the chairman of the committee having the resolution in charge and succeeded in having its passage blocked. This is in harmony with all his previous acts. He has been anti-American, anti-Wilsonian, and pro-German. That is the main fact; he is and has been from the outbreak of hostilities in Europe distinctly with the Germans.

The question of our Mexican relations is engaging serious attention, and this unwillingness of Carranza to recognize that Germany has been beaten and that we are among the victors gives point to the discussion upon Mexican affairs that has broken out in the press of the country, and even in the halls of Congress. Senator Ashurst of Arizona has stirred both the United States and Mexico by a speech calling for negotiations for the purchase of a large part of the rich State of Sonora and the whole of Lower California. The value to us of these pieces of territory has become apparent to the entire nation. Sonora and its great port on the Gulf of California at Guaymas is the necessary counterpart to our arid Southwest; and Lower California is equally the counterpart to Southern California, and would give to San Diego a well-balanced and fruitful back-country that would make it a great commercial center. It would also end the question of a Japanese coaling station at Magdalena Bay.

These areas were once offered to us by Mexico in the first draft of the treaty for rectifying the frontier that was arranged by Gadsden. The compensation was to have been \$15,000,000, but some of the Senators of that day remarked that we already had "enough jackrabbit territory." In consequence, a new treaty was drawn giving us a much smaller territory, for which we paid \$5,000,000. Since that time the growing Mexican national spirit, under the consolidation of interests throughout the republic brought about by Diaz has developed an intense unwillingness to allow any of the territory to be ceded. Just why Senator Ashurst should at this time have undertaken to make such a speech is somewhat difficult to comprehend, since its natural effect would be to strengthen the support of President Carranza, who has shown himself to be not only incapable of reviving the industrial life of Mexico and of restoring peace, but inimical to Americans individually and as investors in that country. We imagine that he has been misguided in some manner to make so conspicuous a display of the undoubted fact that the American people could not fail to desire the annexation of these particular territories. On the other hand, the American people might desire them without having any intention of actually trying to obtain them, for we are convinced that any aggressive action against Mexico for the sake of territorial expansion would meet with small support.

The speeches of Senator King of Utah urging the passage of a resolution asking the State Department to present to Congress information in its possession regarding Mexican affairs is much more to the point. It indicates a certainty of knowledge on his part that the State Department could reveal information of importance to the welfare of the country regarding Mexico if it would. There have been hidden in its archives for years a great deal of astounding data that would arouse strong feeling throughout the country that the farce of a government conducted by Carranza should be no longer upheld by any friendly co-operation on our part. The memory of the 17 murdered Americans at Santa Isabel has not faded, neither have the outrages at Columbus and Carrizal been forgotten. There are other horrors that could be revealed which would awaken our people to a sense of the evil that has been suffered to go on with the aid and connivance of the Germans across our Southern border. The papers demanded by Senator King should be presented. It is time that the people knew the facts.

No sooner had this matter come up in Congress than Carranza played a card in his usual cunning way. He made a request of this Government to lift the embargo upon the exportation of arms and ammunition to the Mexican Government, realizing that this would immediately enlist the favor of many of the most powerful industrial interests in the country, and that it would embarrass the Administration. With this new feature forced upon the inter-

national relations of the two countries he thought to be able at least to head off action in the Senate on Senator King's resolution. Immediately afterward came the speech by Senator Ashurst, which was certainly a welcome coincidence to Carranza, as it gave him strong national support at a moment of difficulty. The pressure for fair treatment by the oil producers in Mexico has been growing more insistent for a long time. An organization of Mexican investors had been effected to bring influence to bear upon our Government to obtain justice and the settlement of claims. A diplomatic controversy had been going on which had reached an acute stage. It was a clever piece of diplomacy to inject this demand for importations at a juncture when our own business was demoralized to a considerable extent. Moreover, he was not unconscious of the fact that the increasing revolutionary difficulties which he was meeting in nearly every State in the republic could be used as a further argument with our Government, since we had been accusing him of inability to maintain order. He therefore replies by asking for military supplies to strengthen his administration in preserving peace.

To grant such a petition, however, would be to continue the disastrous policy of arming a people that has been long under leadership that is hostile to us. It is to arm a Government that is saturated with pro-German sentiment and that will persist in spreading the German propaganda in every possible way. Also, it must be recognized that the Government of Carranza represents but a fraction of the Mexican people, and that the best element of the workers consists of the rural population, unorganized, incapable of co-operating until they shall find a strong leader, but actually well equipped with rifles and ammunition, which they obtained by joining the revolutionary armies from time to time and as often deserting with these munitions, which they have carefully secreted. These people acquiesce in the present Government until they may find an opportunity to rise and restore the principles for which they fought in the earlier campaigns of the Constitutionalists. If the United States should permit Carranza to secure military supplies it would be a crime against this great majority of the Mexican people, who are peace-loving and would make good neighbors if properly governed. The embargo should be maintained as a rigid barrier, and Mexico should be allowed to run her internal policies as she pleases so long as she observes the treaty rights of our people, but these should be pressed with determination, and no equivocation and shuffling for delay should be tolerated. Meanwhile, there should be no more talk of annexation, for it is against our interests. We do want friendly commercial intercourse with Mexico, and that is enough. At present there is no friendly commercial intercourse; Mexico is being systematically administered with a view to maintain and to increase a feeling of animosity, so that the men in power may use it at any moment as a means for rallying the whole population to its support in the name of patriotism to embarrass us and to give them political strength.

### Machinery and Supply Dealers' Associations to Meet at New Orleans.

The Eighteenth Annual Convention of the Southern Supply and Machinery Dealers' Association will be held in the Grunewald Hotel, New Orleans, La., April 7, 8 and 9.

During the same week, starting Tuesday, the 8th, the Southern Hardware Jobbers' Association will meet in the St. Charles Hotel, New Orleans, which will enable these two jobbers' organizations, doing business in the South, to hold several joint sessions in which trade problems peculiar to the South in these respective lines can be thoroughly discussed.

Invitations have been extended to the American Supply and Machinery Manufacturers' Association to meet in joint session, and as usual the National Hardware Association will hold a meeting with the Southern Hardware Jobbers. An invitation has also been extended to the National Supply and Machinery Dealers' Association to meet at this time.

The mill of the Southern Paper Co., located at Kreole, six miles from Pascagoula, Miss., is building at a cost of \$150,000 two mains to a creek in the hills, eight miles away, in order to be assured of a constant supply of fresh water.

## HIGH TYPE OF SOUTHERN TEXTILE PLANT.

### Interesting Equipment and Surroundings of Recently Established Rex Spinning Co. at Ranlo, N. C.

The Rex Spinning Co. at Ranlo, N. C., has built cozy homes for its present and prospective employees to live in, and a model plant for them to work in. It presents an interesting example of a carefully designed and efficiently operated textile mill. The village of Ranlo, which consists of the mill, the employees and their families, is situated 18 miles southwest of Charlotte, N. C., and may be reached by the Piedmont & Northern Electric Railway. Freight is consigned over the Seaboard Air Line to Mt. Holly, or over the Southern Railway to Gastonia and then transferred to the electric road.

It has been the aim of the management of this mill to establish



TYPICAL COTTAGE FOR OPERATIVES.

an ideal textile manufacturing community. This policy, instituted by the president, Mr. Mayes, has been enthusiastically carried out by the other officers. Today the mill, considered from the points of view of the operatives' accommodation and life, perfection of mechanical equipment and beauty of property, is a model of its kind.

Ranlo has a population of about 360 people, and the mill now has 120 employees. This and other mills in the vicinity are erecting a graded school building of the most modern type. It will compare well with modern high-school structures in any of the smaller cities, until now a school has been maintained for the

benefit of the children of the operatives, entirely at the expense of the company.

The neatly furnished houses, well kept and clean, and the pretty gardens bear testimony to the appreciation of the employees. The company owns twenty five-room and eleven six-room houses, which are rented at reasonable rates. They are substantially built, being equipped with electric lights, bath and sewerage.

The Rex Spinning Co. was organized in 1915, began operation on May 1, 1916, and is under the direction of President J. H. Mayes, Charlotte, N. C.; Vice-President John Rankin, Lowell, N. C., and Secretary Wm. Bryce, Charlotte, N. C.

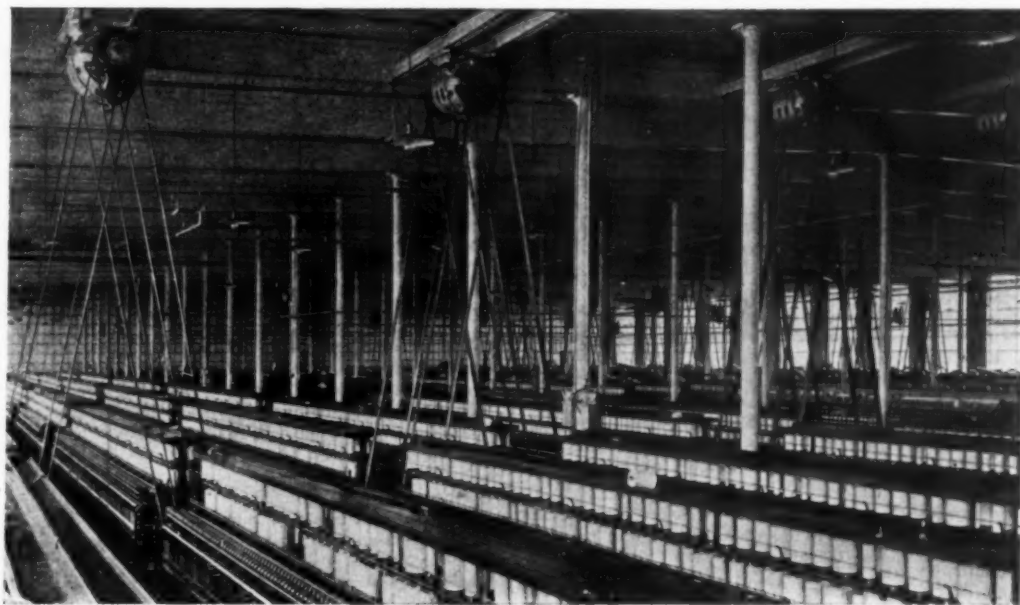
The operation of the plant is under the direct supervision of Superintendent C. E. Bean, who makes his home on the property, and therefore possesses more than a passing interest in the community and its welfare.

The mill has 12,000 spindles, which will shortly be increased to 20,000, and is engaged in producing yarn from raw cotton at the rate of about 8000 pounds a week. The raw staple is secured mostly from Mississippi.

The main building is 125x400 feet in area, of an unusually well ventilated and light type of construction, which adds to the comfort of the employees, as well as forming an important factor in production. It is well supplied with humidifiers and fire extinguishers. The cleanliness, the safety devices for protection of employees and the general spirit of the company seem to have been to make the men and women that work for it contented and happy in their work. Moreover, the equipment in the mill is of the finest. Shafting is virtually eliminated, being used only for driving cards and warpers. The drive employed is a two and four-frame, with individual drive on winders, spoolers and pickers. Electric motors of 25 horse-power are used to drive four spinning frames or twistors; a 10-horse-power motor drives the drawing frames. To drive each two of the speeders five-horse-power motors are used. All motors, except the individual motors, are of the ceiling mounted type. Other motors are used to furnish power for the opener and fire pump, and a well-equipped machine shop. All of the motors for this installation were furnished by the Westinghouse Electric & Manufacturing Co.

Electric power is supplied from the high-tension lines of the Southern Power Co., the distributor of electric energy in this district. This eliminates the trouble and additional expense of maintaining a power plant, and enables the operators to devote their time and energy to the production of yarn. The high-tension current is stepped down to 550 volts by a bank of transformers located just outside the main building.

Water is supplied for the factory and for the town from a deep



MOTORS DRIVING SPINNING FRAMES.

well by an electric motor-driven pump, the excess going to a reservoir tank from which it flows by gravity into the mains.

To provide further for the physical welfare of the employees, a trained nurse is kept on duty in the mill during working hours, who is at the command of any employee who may require her services.

### Many Millions Poured Into Virginia in the Great War Work of the Government.

Richmond, Va., January 30—[Special.]—Billions of dollars accruing in the United States from the sale of Liberty Bonds and War Savings Stamps found their way into Virginia since the nation entered the gigantic struggle to defeat the German autocracy.

Even those given to making conservative estimates refuse to give a total figure of the vast sums expended by the United States Government in the oldest State of the Union.

Figures obtainable show that in the construction of Camp Lee at Petersburg, the city that marks the spot where one of the historic battles in the war between the States was fought, is one of the largest in the United States, and conservative estimators place the cost of its construction at \$18,000,000. It is one of the most complete military camps in the world.

To this large mobilization camp can be added the marine camp at Quantico, Va., where thousands of dollars have been expended to make it an ideal camp. Vast sums were paid the men constantly in training there, and much of it found its way into the commercial channels of Fredericksburg and Alexandria, these two cities being most conveniently located.

Camp Eustis, located at Lee Hall, provided accommodations for many thousand drafted men, and volunteers came from all parts of the country to learn the art of firing both large and small field arms. Owing to Lee Hall being but a small town, much of the wages paid the soldiers came to Richmond institutions.

For balloon instruction Camp Morrison was provided with every facility. This camp is located a few miles from Newport News. The population of this camp was 3000 men, while the population of Camp Lee, the infantry camp at Petersburg, was upwards of 60,000 for more than a year.

Camp Stewart, at Newport News, provided training facilities for men forwarded from various other camps in preparation for overseas service.

Near Norfolk is located Langley Field, where thousands of aviators were taught flying and bombing. The majority of funds paid to these men found their way into the commercial channels of these various nearby towns.

Norfolk also has a naval base in which the Government has expended and appropriated for future development a great many millions of dollars.

At both Richmond and Charlottesville the Government took over vast tracts of land upon which were provided automobile instruction camps. The one at Richmond accommodated 3000 students for the major part of the past year.

In shipbuilding the State plants also profited. At West Point a small yard came under Government supervision and was expanded to more than double its capacity. The plant at Portsmouth also became one of greater importance because of the increased production of vessels to take food to the allied nations and troops to help them beat down the Germans.

Hopewell grew up over night as a result of the war. From a desolate tract of land to a city of several thousand population tells succinctly the story of Hopewell's growth. Here the large powder plants were engaged in Government work, and this and the fact that extraordinary wages were being paid brought men from all parts of the United States. Even boys left schools and found employment paying them from \$30 to \$40 per week. The working force operated in three shifts, making Hopewell practically a 24-hour city.

Penniman provided a military camp where men perfected the various poisonous gases which proved a determining factor in forcing the Hun to change his mind.

Camp Humphreys, located at Accotink, was a trifle over a year ago a deserted unused tract of land. Engineers of the American army have since converted it into an up-to-date military

camp, and in the meanwhile learned the intricacies of the war game.

To the Hopewell powder and explosive camp may be added the powder plant, constructed at the cost of millions of dollars at Kingsport, just across the State line from Bristol, but having the latter city as its business center.

On the outskirts of Richmond was located the powder-sacking plant, where hundreds of society folk, dressed in the munitioners' garb of blouse and bloomers, spent many months in sacking the explosives in preparation for shipment to France.

A huge warehouse, located in Richmond near the site of the old Libby prison of Civil War fame, was converted into an assembling plant for the aviation service. Here the various parts were collected and made ready for overseas shipments. A force of men was constantly employed here both as workmen and guards.

Another huge Government plan which brought vast sums of the nation's money into Virginia was the housing construction at Newport News and Norfolk. Millions of dollars have been appropriated for this purpose in the two cities. The end of the war halted the construction, however, and efforts are now being made by the various business men and commercial organizations to have the Government complete the work begun.

Every college, practically, in the State of Virginia became a military school during last August. Richmond College was converted into a training school and had an enrollment of 500 pupils, all under Government pay during the training period. The University of Virginia at Charlottesville was similarly situated, as well as V. P. I. at Blacksburg and V. M. T. at Lexington. This move on the part of the National Government brought millions of dollars into the State.

Yorktown, by virtue of being the headquarters of the naval fleet, benefited immensely by the millions of dollars brought in by the various men stationed on the war fleet.

Viewing this amount of expansion from various angles, there is little wonder that the men accustomed to juggling figures even in the eight columns stagger at the colossal sums laid out.

In the opinion of men of affairs, Virginia will also reap a vast benefit from another source, primarily due to the fact that the various war camps have brought men from various parts of the country, and many of them, attracted by the climate and many opportunities afforded, are planning to locate within the borders of the State.

### Pascagoula to Have New River Terminals.

Pascagoula, Miss., February 1—[Special.]—River terminals will be built by the city of Pascagoula at a cost of \$100,000 as soon as the bonds can be floated. The terminals are to be 800 feet in length, and will have all modern facilities for loading and unloading vessels by machinery. When the terminals are completed Pascagoula will become one of the most important stations on the Gulf coast for coaling vessels. Coal will be brought here by barge by the new Warrior River barge line from the Alabama coal fields.

The International Shipbuilding Corporation will immediately construct a railroad that will connect the shipbuilding plant with the new water terminals and with the railroads entering this port. The railroad will be built to facilitate the delivery of material to the shipyard. The shipbuilding corporation has a capacity for building 10 steel ships at one time, and enough contracts to keep the plant in operation on full time for 10 years.

### Steel Pension Fund Disbursements Large.

The eighth annual report of the United States Steel and Carnegie Pension Fund, which is applicable to the employees of the United States Steel Corporation and its subsidiary companies, has been issued covering the year 1918, during which the total disbursements amounted to \$709,059.82. There are now 2861 pension cases carried by the fund, the number a year ago having been 2333, while during the twelve months 214 were added and 286 discontinued. The averages for cases from 1911, when the fund was established, to 1918, inclusive, are as follows: Age, 65.51 years; service, 30.13 years; monthly pension, \$22.10. The total of disbursements from 1911 to 1918, inclusive, were \$4,367,107.55. The headquarters of the fund are in the Oliver Building, Pittsburgh, Pa., with J. B. Erskine as manager and J. H. Wood assistant manager.

### The Potash Situation in America and in Alsace.

Washington, D. C., February 3.—[Special.]—As the result of inquiries into the present situation in the Alsatian potash industry, cable advices have been received from Mulhausen showing that the prices of potash products f. o. b. at Mulhausen last week were:

	Per ton.
Kainite, 12 to 15 per cent.....	\$9.24
Fertilizer salts, 20 per cent.....	19.44
Potassium chloride, 50 per cent.....	68.77

The production of potash salts in Alsace before the war was as follows:

	1912.	Tons	1913.
Kainite .....	6,854		21,496
Potassium chloride.....	2,870		6,111

No further development has taken place during the war, and consequently the amount available at the present time is small, and would not for some months be at a greater rate than 25,000 tons yearly.

The item regarding exportation to England is not yet released. It is, however, no secret that over 10,000 tons of American potash are stored by producers in Baltimore and no market can be found. Still larger quantities of American potash are stored by the producers in various Southern supply points and is not moving. No German potash will be available for a great many months, and the fertilizer mixtures contain this year much smaller percentages of potash than farmers generally demand, and owing to the peculiarities of the market the indications are that insufficient potash will be released to avert a continuance of the "potash famine," so-called, despite the fact that upwards of 100,000 tons of American potash salts remain in store unsold.

### All Southern Shipbuilding Plants to Be Utilized for Peace-Time Work, Shipping Board Declares.

Washington, D. C., February 4.—[Special.]—Southern shipbuilding plants will be more urgently needed by the United States Shipping Board to provide tonnage for peace purposes than they proved to be for emergency war purposes. This statement was authorized by the board today. There is no purpose to suspend or abandon construction. There may, however, be some relaxation of effort pending the announcement of a building program which a special committee recently appointed for that purpose is expected shortly to complete.

It was pointed out that the board has scores of yards, most of them the property of private individuals or corporations and financed by the Emergency Fleet Corporation. All these will be needed to bring to fruition plans which the special committee will undoubtedly make provision for. It is generally agreed that the United States must and will become a great maritime power; hence it will have use for all the building facilities placed at its disposal during the war, and even more. Charles Piez, director-general of the Emergency Fleet Corporation, recently said that when the program is adjusted to meet the demands for a peace fleet it will be necessary to add to the number of yards and plants now in operation.

Moreover, the stories recently circulated crediting the United States Shipping Board with a purpose to wholly abandon wooden-ship construction are not exactly correct. It is true that the war emergency contracts for this species of vessel have been cancelled or modified. But, according to information coming from an absolutely reliable source, experiments have recently been made which justify builders in the belief that either the board or private corporations will resume on a large scale the construction of wooden ships.

It is believed that a great fleet of tankers can be constructed from lumber. With a copper lining, these can be trusted to carry oil to any port in the world without running the risk of leakage. They can be built at a much less expense than steel boats and are just as seaworthy, an expert in the Shipping Board said.

"A campaign against the construction of wooden ships has been in progress for some time," said the expert referred to. "These persons are not especially moved by altruistic impulses. They have selfish reasons for desiring the elimination of this type of ship. But there has been found a process by which the wooden ship can be made to serve as a tanker, and, if I am not mistaken, the board will either build a fleet of such vessels or give such

encouragement to private concerns as to induce them to undertake the work."

At the offices of the Shipping Board it was pointed out that the wooden ships had brought the sugar crop from Hawaii to the mainland, and they had done splendid service in carrying nitrates from Chile. An immense fleet of vessels made from lumber could be used in the nitrate trade alone.

### New Type of Sailing Vessel Developed at Biloxi.

Biloxi, Miss., February 1.—[Special.]—The Biloxi Dry Dock & Shipbuilding Co., located on the Bay of Biloxi, is building a new type of wooden sailing vessel that it is claimed can be constructed in half the time required to build round-bottom vessels, and when completed they have a greater net tonnage capacity. In addition to this, it is claimed that the new boats are cheaper to operate and have a lower insurance rating.

Flat bottoms are the distinguishing features of the new vessels, and it is claimed that they can be navigated in five feet of water while loaded to capacity.

When the plans were drafted the drawings were submitted to marine underwriters, among them Loyds of London, who examined them closely and placed the stamp of their approval thereon. The underwriters, it is said, pronounced the new boats superior to round bottom sailing ships from a standpoint of freight-carrying capacity and safety.

C. H. Daughdrill, general manager of the company, says his plant has closed a contract with Portuguese interests for six vessels of the flat-bottom type, and they are now under construction.

The company now has one sawmill in operation in the shipyard, and is installing a second mill so as to speed up the production of timber and lumber used in shipbuilding. Logs are floated to the yards, where they are cut into timber and lumber that is immediately used in building ships. By consolidating the sawmills with the shipbuilding plant the cost of operation was reduced and all freight charges eliminated.

The new vessels have a net tonnage of 1000 tons each. The company has an ample supply of labor.

The plant of the Mississippi Shipbuilding Corporation, which closed some weeks ago on account of labor troubles, has resumed operations on full time. The company has contracts for the construction of several wood sailing vessels.

### Great Dry Dock Completed at Norfolk.

Completion of the great dry dock at the Norfolk Navy-yard is announced. It is 1022 feet long, and will accommodate a ship 1000 feet long if need be. The great steamship Leviathan, formerly the Vaterland, is 800 feet long, so that there would be more than 100 feet of extra room if she were docked. This is the largest vessel in the world, but it will be equalled as to length and perhaps exceeded in general magnitude by a great battle cruiser now under construction in a British shipyard. The Norfolk dock is, moreover, 116 feet wide at the floor and 144 feet at the coping. There are 40 feet of water over keel blocks at mean high water and 43 feet over the sill. A caisson 132 feet long and 26 feet wide closes the entrance.

The George Leary Construction Co. built the dock for the Government. It is by far the largest dry dock on this side of the Atlantic.

### Concrete Vessels Building at Mobile.

Pursuant to an announcement by the Fred T. Ivey Company, Mobile, Ala., the first pouring of concrete for the two concrete ships building at the Frascati plant was done last week. These vessels are to be launched, according to expectations, during the first week in March, although in the construction of concrete ships a certain amount of time must be allowed for the hardening of the concrete. Nevertheless, a month is ordinarily a sufficient period for this to be done successfully. It is said that these two craft will be larger than any other similar ships contracted for by the Emergency Fleet Corporation.

Another shipbuilding event last week at Mobile was the launching of the mine sweeper Whipporwill at the plant of the Alabama Dry Docks & Shipbuilding Co. This vessel is the same type as the Swan, which has been completed and accepted by the Government.

### Two Concrete Ships Building at Wilmington, N. C.

Construction began last week at the plant of the Liberty Shipbuilding Co., Wilmington, N. C., upon the first of two concrete ships, for which contracts were awarded by the Emergency Fleet Corporation. It is stated that the construction of the bottom of the vessel alone will require 300 tons of cement, and that this first step in the work will take about three days. When the bottom has sufficiently hardened construction of the sides of the vessel is to begin. Lastly the deck will be built. It requires about a month to complete the concrete work on such a craft. Immediately following the building of the bottom of this first ship at Wilmington the bottom will be laid for the second ship, the building of which will then proceed simultaneously with that of the first. After these craft are completed so far as the concrete is concerned, they will be towed to Jacksonville, Fla., to have machinery installed. The Wilmington yards now have about 800 men employed.

### Large Development of Timber for Ships, Etc.

The Piave Mill Co., a subsidiary of the International Shipbuilding Co., Inc., of Gulfport, Miss., has purchased the timber rights on a large tract of woodland in Green and George counties in that State, and plans for its development will be duly decided. At present the Piave Mill Co. is erecting a modern sawmill at Piave, Miss., about 12 miles east of Richton, which will cut and ship the timber from this tract to the yards of the International Shipbuilding Co. at Pascagoula, Miss., and Orange, Tex. The mill company will also cater to some extent to the export trade as soon as matters develop in that branch of the lumber business. The officers of the International Shipbuilding Co., which also has a yard at Beaumont, Tex., are Henry Piaggio, president; B. E. Eaton, vice-president; D. R. McInnis, secretary.

### Will Carry Out Ship Contract.

Orange, Tex., January 30.—[Special.]—The National Shipbuilding Co. will build the 16 wooden ships for which it held a contract from the Government at the time the armistice was signed. The contract was cancelled, but has been revived. All of these vessels are to be of the Daugherty type. They will be equipped with machinery at the yards which the company maintains at Galveston.

### Marked Decline in Coal Production.

A considerable decrease occurred in production of bituminous coal during the week ended January 25, the output declining to the low level of 9,159,000 net tons, as reported by the United States Geological Survey. This production, which falls approximately 750,000 net tons below the preceding week and approximately 1,000,000 net tons below the corresponding week of last year, is at the rate of 475,000,000 net tons per annum, and is considerably below present consumption. Many consumers are now using coal accumulated during last summer, and the present good weather enables certain consumers to await the outcome of the raising of the zone and price restriction by the United States Fuel Administration before placing their orders.

The daily production of bituminous coal during the current week, estimated at 1,526,000 net tons, is 19 per cent. below the daily average for the coal year to date and 13 per cent. behind the daily average for the same period of last year. The total production for the period, April 1 to January 25, is now estimated at 485,656,000 net tons, and is 34,855,000 net tons, or 7.7 per cent., in excess of last year's production for the same period of time.

The production of anthracite increased considerably during the week ended January 25, and was slightly in excess of the average weekly production for the coal year to date. Preliminary estimates place production of anthracite for the current week at 1,886,000 net tons, as against 1,786,000 net tons during the week of January 18, and as against 1,719,000 net tons during the week of January 25, 1918. The daily average during the current week, estimated at 314,000 net tons, is a slight increase over the daily average for the coal year to date, and but 3000 net tons, or 1 per cent., behind the daily average for a similar period of last year.

Bituminous coal shipments to New England during the week

ended January 25 are estimated at 344,112 net tons, an increase of approximately 33,000 net tons, or 11 per cent., over the shipments of the week preceding. This improvement occurred entirely in the receipts through the rail gateways, the increase in this tonnage for the week amounting to approximately 44,000 net tons, or 40 per cent., over the week of January 18. Tidewater shipments declined during the week approximately 11,000 net tons, and was brought about chiefly by the low tonnage loaded at Baltimore.

Shipments from Atlantic harbors amounted to 683,904 net tons, and, as in the case of New England, tidewater shipments fell slightly below the performance of the week of January 18. Shipments from New York and Philadelphia were in excess of the preceding week, while Baltimore and Hampton Roads fell considerably behind.

Production of beehive coke for the week ended January 25 is estimated at 375,000 net tons, an increase of 18,000 net tons, or 3 per cent., over the week preceding, and 75,000 net tons, or 15 per cent., over the same week of 1918. The average production per working day for the current week is estimated at 96,000 net tons, as compared with 83,000 during the week of January 25 of last year.

The operators in the Connellsville, Greensburg and Latrobe districts of Pennsylvania report production at 280,767 net tons of beehive coke and the operation of their plants at 74.6 per cent. of their full time, as compared with 76 per cent. during the week of January 18.

By-product coke production in the United States for the week ended January 25 is reported at 558,876 net tons, as compared with 559,298 net tons during the week ended January 18 and 366,208 net tons during the corresponding week of 1918. During the current week the ovens of the country were operated at 84.6 per cent. of their full time, operating conditions remaining approximately the same as the week preceding. Loss of capacity attributed to lack of market increased slightly in Massachusetts and Minnesota. In the former State approximately one-half of the capacity is now lost on account of this lack of business.

### National Rivers and Harbors Convention.

The subjects for consideration and discussion at the fourteenth annual convention of the National Rivers and Harbors Congress, meeting at Washington February 5, 6 and 7 in the assembly hall of the New Willard Hotel, include "Correlation of Highways and Waterways," "Shall Waterways as Well as Railways Be Placed Under Control of the Interstate Commerce Commission?" "What the Government Is Doing for Water Transportation," "Transportation," being a broad consideration of the whole subject; "Future Air Traffic and Necessary Regulations Governing Same," "Essential Unity of Transportation by Water, Rail, Road or on Land and on Sea," "Meeting Water Competition," under which general heading various aspects of the problem will be considered and debated; "What Shall Be Done With Our Railroads?" which will include discussion on Government ownership, return to private ownership and a dual plan of ownership. In addition, the tentative program provides for various reports, addresses by Cabinet officers and other prominent men, including the annual report and address by Senator Joseph E. Ransdell of Louisiana, president of the congress. The secretary is S. A. Thompson, 824 Colorado Building, Washington, D. C.

### Shelby Chemicals Co. to Begin Operation Shortly.

Birmingham, Ala., February 1.—[Special.]—The hardwood by-product plant of the Shelby Chemicals Co., located at the charcoal iron furnace of the Shelby Iron Co., about 35 miles south of Birmingham, will be ready for operation in 30 or 40 days. Delays have been caused by inability to get in material. The Government assisted in the financing of the plant, intentions having been at the time to use considerable of the by-products for war purposes. It is estimated that the industry will cost when completed upwards of \$750,000. The charcoal will be used by the Shelby Iron Co., of course, while the wood alcohol, acetone and acetate of lime will find a ready market, it is expected. About 100 cords of hardwood will be used daily, and for the past several months there has been purchasing of wood that will supply the plant to insure steady operation if desired.

Morris Bush, who is president of the Shelby Iron Co., is president of the Shelby Chemicals Co.

## Great Steel Fabricating Plant a Permanent Industry at Galveston.

Galveston, Tex., January 25—[Special.]—When the officers of the corporation engaged in the construction here of a 10,000 dry dock and ship-repair plant looked about for a steel fabricating establishment capable of handling their order, they found in the Texas Carnegie Steel Association of Galveston an institution fully equipped to do the work. In consequence the order was placed with the local concern, which is now devoting a portion of its facilities to the production of the steel and iron material which enters into the composition of the drydock. It is perhaps the biggest single job of the kind ever undertaken by a Texas steel fabricating organization, and an illustration of what Galveston possesses in the way of structural facilities.

The plant of the Texas Carnegie Steel Association covers approximately one block of ground, and has the unusual advantage of access to both rail and water transportation. It is located on the waterfront at Pier B of the Southern Pacific Railroad Co., two lines of which railway serve it. This arrangement provides the utmost economy of time and effort in the handling of finished steel products from the factory to the consumer, and in receiving the iron and steel materials from the East by water.

There are three units in the plant, covering an area 250x325 feet, comprising three buildings located side by side, and virtually making one great structure, as there are no separating walls, columns being employed instead. The first two buildings, which are nearest the waterfront, are employed for bar and structural steel storage. They are 100x250 feet each, of steel frame, peak roof construction, and are covered with corrugated sheathing. The third building, 125x250 feet in dimensions, is the fabricating shop. The roof is of the monitor type. Ample illumination is provided by swinging steel sashes, monitor lights and skylights, in all of which reinforced wire glass is used. High power incandescent lamps are used at night.

A thorough equipment of powerful electric cranes enables the handling of the most difficult work with ease and dispatch. Each warehouse has a 10-ton crane of the mill type, with a span of 95 feet. The fabricating plant is served by two cranes of the same capacity and type, each having a 60-foot span, mounted on runways which parallel each other. The crane rails in all three buildings are 22 feet above the floor. They are all of the most modern type, provided with dynamic braking in connection with magnetic switch control. Two trolleys on each crane make it unnecessary to balance the loads. This also eliminates the element of danger, since the loads, supported at two points, have no tendency to slip through the chains.

The machinery is all highly improved, and selected with a view both to efficiency and the conservation of life. Gears, flywheels and dangerous moving parts are enclosed in suitable guards, and wherever possible dynamic braking is employed. This is especially noticeable in the metal cutting and working machines, where the flywheels do not come to rest immediately that the power is shut off. With the dynamic brake, however, the flywheels are brought to rest within a few seconds, thus eliminating a source of considerable danger to the workman. Each machine is supplied with an individual motor and an automatic magnetic motor starter, operated by push buttons located within convenient reach of the operators. Cloth or rawhide pinions are employed to lessen the amount of noise.

The equipment for cutting material to length comprises a heavy mill type bar shear with an 18-inch knife, and a plate shear capable of shearing a 72x1-inch plate. This latter has a 24-inch gap, so that plates may be split or side-sheared. A 24-inch capacity friction saw is used in cutting structural shapes to length; it has a variable speed traverse drive and a roller table 100 feet long. For cutting angles, a 6x6x¾-inch capacity angle shear is used. A seven-spindle twisting machine driven by a powerful motor is employed for twisting bars to be used in reinforced concrete construction.

All sorts of fitted work may be turned out with the up-to-date equipment in the fabricating shop, which includes a heavy type double beam punch and coping machine, a punch with a 48-inch gap, a 36-inch rotary planer and a gag press for bending and straightening materials. The machine tool equipment includes a 24-inch lathe, a 20-inch shaper, a high-duty drill press and boring machine, a motor-driven emery wheel and a 1½-inch double-head screw-cutting machine. The riveting equipment includes a 16x9x14-inch tandem type direct motor connected air

compressor of the enclosed automatic oiling type, controlled by an automatic pressure regulator and automatic motor starter. There are also horseshoe and compression type machine riveters, as well as hand tools. Several oil-burning furnaces comprise the heating arrangements in the fabricating shop.

One of the most important features of the plant are the facilities for handling material either to freight cars or steamship holds. The 30-foot depth of water right up to the handling platform is sufficient to accommodate the largest ocean-going ships. The incoming materials are placed on narrow-gauge cars which run on a track through the center of the building and at right angles to the direction of travel of the cranes. Two railway tracks enter the interior of the plant along the east and west ends, respectively. The floor level of the plant is four feet above the level of the railways, thus bringing the floor to a level with the car floors. A portion of the floor adjacent to the track on the east, 20 feet wide, is reserved for making up shipments; this space is provided with narrow-gauge tracks and a track scale. In addition to rail and water connections, ample arrangements have been provided for handling shipments by wagon or motor truck.

The officers of the association are: C. N. Markle, president; F. B. Markle, vice-president; C. H. Munnis, secretary-treasurer. C. L. Gillespie is the general superintendent in charge of the plant.

Regarding the permanency of the establishment, F. B. Markle authorized the following statement:

"Our warehousing and fabricating plant will be permanent. The war had nothing to do with its establishment, and the war's close will have nothing to do with its continuance."

## Success of Motor Express Lines.

The National Automobile Chamber of Commerce, Inc., 7 East 42d street, New York, is actively and in various ways directing attention to the importance of rural motor express lines to the country, and particularly to farmers. It observes that individual lines now operating are gradually composing a transportation system which will finally extend over the whole United States. The Rural Motor Express Committee of the organization has sent to all parts of the country reading matter telling how to go about organizing a line, this being followed by other material relating to the profits already realized by such lines in operation and presenting results of experience by pioneers in the business. One of the experiences described is that of the Highways Motor Transport Co. of Cleveland, Ohio, operating lines to Sandusky and Ashtabula, respectively. About 150,000 crates and baskets of vegetables and fruits were transported on these two routes during the last crop season of 1918. Six-ton trucks were operated, with occasionally trailers of five tons capacity. Rates ranged from 25 cents per hundredweight for 28 miles up to 40 cents for 55 miles. Baskets were carried for from 6 to 7 cents for 18-pound, and from 7 to 10 cents for 25-pound. Bushel baskets paid from 18 to 24 cents, according to distance, and bushel crates from 21 to 28 cents similarly. Empties were returned over any distance for from 2 cents to 3½ cents, according to size.

Another instance is that of the Highways Motors Transportation Co. of Spokane, Wash., incorporated for \$100,000, which is using 16 large five-ton trucks, operating on nine routes from 18 to 91 miles long, respectively. Minimum business, 68,000 tons per year. The company has all the traffic it can handle. Sundry other lines are operating here and in Canada.

## Cultivation of Bamboo to Be Encouraged.

A report from Savannah, Ga., says that Dr. David G. Fairchild of the United States Department of Agriculture recently visited and inspected a bamboo grove on the Ogeechee road near that city. This bamboo, which was planted about 16 years ago, is now described as being unusually tall and fine. It occupies about one acre of land. Dr. Fairchild left Savannah to visit another grove of bamboo in Florida. It is hoped to encourage the planting of bamboo by farmers where conditions are favorable to its growth, so that it may be raised in sufficient quantities to meet demands which are now supplied by importation from the Far East. Bamboo, it is said, will not grow beside other grasses (bamboo is technically a grass) or trees; it must have a tract of land all to itself. It is raised from slips, which are cut and set out after the manner of planting trees.

### Conditions in Raw Materials Market and Industries at Birmingham.

Birmingham, Ala., February 3.—[Special].—But little iron is being sold, though the \$31 per ton price, No. 2 foundry, is now to be found in more than two offices in the Southern territory. There are two or more companies still adhering to the \$34 per ton price. One of the companies making concession reported sales amounting to something over 1000 tons during the past week, while another did a little better. What the Steel Corporation did is not stated, but the aggregate business for the week was practically nothing. There has been some accumulation of iron. Inasmuch as the make is far under normal, there could not have been a great pile of iron stacked up. Sanitary pipe makers bought a little iron. Inquiries for the product are lagging; in fact, the market is quiet. Difference of opinion is noted as to the future prospects. Some believe there will be a change for the better within the next 30 days, while others do not believe the reconstruction will be well in hand for six months yet. Furnaces with fires banked because of shortage of fuel have resumed operations, and one furnace is scheduled to start in this week after some minor repairing. The production for the first month of the year in Alabama was considerably under normal. No hope is given on the start of the new month for any decided improvement in production or demand. Conditions of the yards will hardly be such for 30 to 60 days if there should be accumulation to warrant measures being taken to reduce cost of production in order to make consumers a lower price. Very little is being said in this direction except statements that the labor situation is not so severe, in some places more men being on hand than needed.

Steel mill operations in the Birmingham district, all included, are on a 70 per cent. capacity basis. The Gulf States Steel Co. had three out of seven open-hearth furnaces in operation, while the Tennessee Coal, Iron & Railroad Co. and American Steel & Wire Co., subsidiary organizations of the United States Steel Corporation, are doing much better.

While the cast-iron pipe market lags apace with the pig-iron situation right now, there is considerable confidence expressed by pipemakers in an improvement before the end of another month. It is believed that specifications will shortly be offered that will call for a large tonnage of pipe, and that within a month preparations can be made to increase the output. The American Cast Iron Pipe Co. has three pits in operation on about a 75 per cent. capacity. Recent purchase of the plant of the Beggs Pipe & Foundry Co., a short distance from its plant, by the American Cast Iron Pipe & Foundry Co. is part of plans for enlargement of operations. The Beggs plant has been working on soil pipe, shoe brakes and general foundry work, and will hereafter be put on cast iron and water pipe. The plants of the United States Cast Iron Pipe & Foundry Co., in the immediate Birmingham district, as well as in the surrounding territory, are in good shape, and when the impetus starts in the cast-iron market it will not take very long to increase production. Any and all demand for cast-iron pipe will be met promptly. The stock on hand right now is not embarrassing.

Charles A. Hamilton of Anniston, manager of the Alabama Pipe & Foundry Co. and the Standard Foundry Co., has purchased the plant of the Superior Manufacturing Co. at Bessemer, a cast-iron soil pipe and fittings plant, and is making betterments and preparing to operate the industry.

The coke industry shows no change. Coal production has not been up to expectations lately. For the week ending January 25 the Alabama coal production went to 364,394 tons, against 368,230 tons the week previous. Organization during the past week of two firms of salesmen in the coal business, each announcing several companies interested, is of significance, meaning a return to the agency or brokerage plans. These agencies will make effort to work up a larger market for the coals of this district, the export and bunkering business in particular to be given attention.

Coal and coke producers, as well as manufacturing interests in the Birmingham district, are manifesting interest in the steps being taken by the United States Railroad Administration, through its inland waterways division, to put into execution decision made by Secretary W. G. McAdoo looking to development of the transportation facilities on the Warrior River, extending from the industrial section of Alabama to Mobile, New Orleans and all parts of the world. Announcement is now made that

contract has been let to the St. Louis Boat & Engineering Co. for four self-propelling barges, each of 2200 tons capacity and each costing \$244,400. It was announced a week or so ago that contract had been let to the Murnan Shipbuilding Co. of Mobile for 20 wooden barges, each with capacity of 800 tons, the total cost of which was stated at \$117,000. This equipment is to be furnished immediately, the first of the wooden barges 20 days from the date of contract and then one barge every seven days. The present equipment on the river consists of two towboats and upwards of 20 wooden barges and four self-propelling barges. Considerable bunker and steam coal is being handled down the river, but the new equipment will accord opportunity for a great tonnage. While the river transportation facilities are being developed, interests in the Birmingham district will consider development in the coal fields adjacent to the river and also terminal facilities on the river.

Operations at the local plant of the American Radiator Co. are quite active. The recent cut of 25 per cent. in radiator prices is having a stimulating influence, it is announced. It is believed that there will be demand for a larger quantity of radiators before long than for years. Need of homes in this district was never before more urgent than now. Sanitary pipemakers are also preparing for a busy season, some few purchases of pig-iron by these interests being noted in the last few days.

The scrap iron and steel market in the Southern territory is absolutely nothing, the consumers not wanting to buy and the dealers not caring to sell with the quotations as weak as they are. Heavy melting steel is below \$15. Dealers are abstaining from buying in stock, and as a consequence there is a cleaning up of yards in the South. With but two exceptions all commodities of the old material dealers in this district have declined in price during the past week. The only commodity that showed any activity whatsoever lately has been No. 1 cast. "The old material market was never as inactive as it is today," is a statement made by a prominent dealer, who, asked as to when he looked for a change for the better, replied that it was a question that he could not answer. Scrap cannot be bought in at prices that must obtain to meet what the consumers are willing to pay. Those few consumers who are buying in a little heavy melting steel, stove plate, cast and other stuff say that they are buying just to meet their immediate demands, feeling sure they could cover if there were prospects of better conditions.

Quotations for pig-iron and old material in the South are given as follows:

#### PIG-IRON.

No. 2 foundry, \$1.75 to \$2.25; silicon, f. o. b. furnaces, Birmingham basing point, \$31 to \$34; differentials remain the same as before; basic iron, \$30 to \$33, f. o. b. furnaces; charcoal iron, \$31, f. o. b. furnaces.

#### OLD MATERIAL.

Old steel axles.....	\$20 to \$25
Old steel rails.....	15 to 17
Heavy melting steel.....	14 to 15
No. 1 R. R. wrought.....	14 to 15
No. 1 cast.....	20 to 22
Stove plate.....	13 to 15
Old car wheels.....	18 to 20
Old tramcar wheels.....	17 to 18
Machine-shop turnings.....	10 to 12
Cast-iron borings.....	10 to 12

### Labor Shortage Reported in Mississippi.

Vicksburg, Miss., February 1.—[Special].—Farm labor in the agricultural sections of Mississippi is short between 40,000 and 50,000 men, while a surplus of labor is to be found in the industrial centers of the State, according to information received here from responsible sources. The shortage of farm labor in the Delta portion of the State alone is placed at between 15,000 and 20,000 men.

Although it is now nearly time to plant another crop, many of the fields in the Delta division of the State are still white with unpicked cotton, and much of it will be lost because of a lack of labor. Delta farmers have for many weeks been offering to pay \$2 and \$2.50 per hundred pounds for picking cotton. Able-bodied men can make \$4 and \$5 per day at this rate of pay, but even this high wage for common farm labor has not attracted enough cotton pickers to harvest the crop.

A feature of the situation in the State that is causing concern is that few of the discharged soldiers are going to the farms. Most of them are flocking to the industrial centers, attracted by the high wages paid by mills and factories.

# RAILROADS

## WARFIELD PLAN TO RETURN RAILROADS.

Early Restoration, Security of Earnings and Investments, Formation of a Railways Association Proposed to Congress.

S. Davies Warfield of Baltimore, president of the National Association of Owners of Railroad Securities, presented its plan for an early restoration of the railroads to their owners before the Senate Committee on Interstate Commerce last Friday, its central idea being that their return should not be accomplished until after the enactment of legislation which will assure them of adequate facilities and service at reasonable rates, under Government control and regulation, as well as protection to the investment in the roads. Moreover, the acts of Congress necessary to accomplish this should be passed early in the 21 months' period provided for the return.

Relieved of operating details, the fundamentals of the plan are expressed in sections as follows:

1. A minimum rate of return on the property investment in the railroads, fixed by Act of Congress, through rates adjusted as occasion may demand, in order that the securities of the railroads may be stabilized and their credit established on a basis necessary to secure the money to provide to the shippers and travelling public adequate facilities and service.

2. Recognition that a fixed return through rates that will enable the average railroad to receive an adequate return on its invested capital is not possible without giving to the more favorably situated railroads more revenue than the public will sanction, or more than would represent a fair return on its property. The earnings of railroads in excess of a fixed reasonable rate of return to be applied as provided in the following section.

3. A distribution under the control and jurisdiction of the Interstate Commerce Commission of a percentage of the fund above provided, that railroad employees shall receive the benefit of profit-sharing, by insurance, or by such other legal methods as may be determined upon; likewise a distribution of a percentage thereof among the railroads earning it, and under the plan, and in furtherance of incentive and initiative by establishing operating efficiency standards; for certain improvements to railroad property, under restrictions, not to be capitalized in rate making; and for other purposes defined in the plan.

4. A corporation, created by Act of Congress, operated without profit to the railroads, and under Federal control, directed by trustees composed of the nine Interstate Commerce Commissioners and eight railroad men, to finance in the present emergency, such equipment as may be purchased by it from the Railroad Administration and allocated to the railroads, and to furnish an immediate means for assisting in financing the return of the roads; continued as a permanent means for mobilizing and purchasing equipment to be leased to the railroads; to provide a management or agency to continue or put into effect the joint use of terminals, unification of facilities, rerouting of freight by pooling or otherwise, and to continue or adopt such methods of operation as may have been found to be successful and expedient during Federal control; to furnish a standing, trained and efficient means for immediate mobilization of the railroads for war purposes without additional legislation.

5. Federal regulation extended through the Interstate Commerce Commission as at present established, co-ordinating therewith subsidiary commissions as Regional Commissions, the members thereof selected equally from the two leading political parties appointed from and sitting in the six traffic territories as at present defined, giving to such bodies the determination of rates and regulations essential provided in the plan.

The right of appeal is given to the Interstate Commerce Commission, which may be designated Commission of Appeal.

6. Continuation of rate committees composed of representatives of both railroads and shippers established in defined territories of the country, to primarily consider and pass upon all changes in rates requested by either railroads or shippers and before being filed with the Regional Commissions or Interstate Commerce Commission as provided in the plan;

7. Co-ordination by the Interstate Commerce Commission, of the work of the State Commissions as far as the limitations of law, and the legislation provided under the plan will permit, with that of the Regional Commissions. The adjustment of intrastate rates to the requirements of interstate commerce as prescribed through interstate rates is vested in the Federal Commissions.

8. Regional Commissions act as Boards of Conciliation for the settlement of wage differences between the railroads and their employees. In default of settlement such commissions shall appoint two arbitrators, the employees naming two, the four so selected naming the fifth, if required. Appeal may be taken to the Interstate Commerce Commission; the findings not to be compulsory unless mutually agreed beforehand. A fixed return being provided under the plan, expenditures for wages or other elements entering into expenditures are supervised by the commissions.

9. Future issues of railroad securities supervised by the Regional Commissions and the Interstate Commerce Commission.

In advocacy of this plan it was stated that it is not involved, but simple, and particular attention was called to the fact that it proposes to relieve the Interstate Commerce Commission by transferring rate-making and supervision of security issues to the six regional commissions, so that the present commission may act as a board to give prompt action on appeals made to it and also to

settle other questions properly coming before such a body, while the corporation to be created (The National Railways Association by name) would dispose of the practical railroad questions arising in connection with operation of the lines.

## Rock Island May Now Develop Terminals at Galveston.

Austin, Tex., January 31.—[Special.]—Now that the litigation between the Chicago, Rock Island & Pacific and the Colorado & Southern railroads, involving traffic rights over the Trinity & Brazos Valley Railroad, has been settled by the payment of \$4,000,000 by the Rock Island for a one-half interest in the line, it is expected that important improvements will be made to the property. The Trinity & Brazos Valley road connects with the Rock Island system, and also with the Fort Worth & Denver City line of the Colorado & Southern at Fort Worth, and affords these systems a direct outlet to Galveston and Houston. At the time the Burlington interests acquired a one-half holding in the Trinity & Brazos Valley, a few years ago, it was announced that the latter road would be used as a Gulf outlet for the grain and other products of the Northwest. Nothing was done, however, to develop this traffic, and the acquired line fell into rather bad physical condition. The Rock Island has for many years owned valuable sites for deep-water terminals in Galveston. It is expected that these will now be utilized.

It is interesting to note in connection with the Trinity & Brazos Valley road that its construction was financed by Col. E. M. House, present member of the peace conference. It was the only business adventure ever attempted by Colonel House, aside from his regular plantation holdings. The building of the new line was strenuously opposed by the late E. H. Harriman, as it traversed territory that was more or less occupied by the Houston & Texas Central, one of the Harriman lines. When the construction of the Trinity & Brazos Valley was started Mr. Harriman sent word to Colonel House that he would parallel every mile that was built with another road. This threat had no effect upon Colonel House's plans. Harriman started in to make good his word. He built about 60 miles and then stopped. The Trinity & Brazos Valley was finished according to original plans. It was later sold by Colonel House and associates for a good profit.

## \$75,000,000 More Pennsylvania Railroad Bonds.

The Pennsylvania Railroad proposes to arrange for the authorization of \$75,000,000 more of its general mortgage bonds by presenting the proposition to the stockholders for approval at the annual meeting on March 11. They are to be issued at such times as may be decided by the directors in providing for requirements, such as meeting maturing obligations, reimbursing the Government for additions and improvements, equipment, etc. As there is a balance of about \$46,000,000 of bonds authorized previously, this will place about \$121,000,000 of securities at the command of the company if necessary. Considerations of economy, it is said, are causing every effort to be made to keep down expenditures while the costs of doing work are so high as they are now.

## Southern Railway Financing in the West.

The Southern Railway has sold \$25,000,000 of three-year 6 per cent. notes to a syndicate headed by Halsey, Stuart & Co. and the Continental and Commercial Trust and Savings Bank of Chicago, the proceeds to be devoted to current financial requirements, including additions, betterments, etc.

Heretofore all financing of the Southern Railway has been arranged in New York, but, according to a report from that city, while bankers there presented a bid for the issue, the Chicago bankers offered better terms and were consequently awarded the notes by the Director of Finance of the Railroad Administration.

## Proposed Extension of Orient Road.

Del Rio, Tex., January 31.—[Special.]—Construction of the proposed branch of the Kansas City, Mexico & Orient Railroad from San Angelo to Del Rio, about 150 miles, will be resumed soon, according to plans of the board of directors announced at

their recent meeting at San Angelo. About 75 miles of the branch line was graded and the work was making rapid progress when the war caused a suspension. Large subsidies of money and lands donated by people along the route have been forfeited unless the contracts are voluntarily renewed, it is stated. It is thought no difficulty will be experienced in having this done.

Much importance is attached to the construction of this line, because it means the opening of a new gateway between the United States and Mexico. Arrangements have been made for the building of a joint bridge across the Rio Grande here by the Kansas City, Mexico & Orient and the National Railways of Mexico. A branch line of the National Railways of Mexico is being constructed from Allende, on the Eagle Pass-Torreon division, to Las Vacas, situated just across the Rio Grande from Eagle Pass. This latter line will be 75 miles long, and will traverse the great irrigated farm of Lorenzo Trevino.

### Receiver for a Line Now Building.

The Buffalo & Northwestern Railroad, according to a report from Waynoka, Okla., has been forced to seek safety in friendly receivership proceedings. L. E. Walker of Waynoka, manager, being appointed receiver. About 20 miles of the proposed 52-mile line from Buffalo to Waynoka have been built, but financial difficulties resulting from war-time conditions obliged the men interested in the enterprise to go into the courts so that what has been done may be preserved and the plan be kept upon a substantial footing until conditions improve. E. C. Johnson of Buffalo, Okla., is president; W. W. Vincent of Waynoka, vice-president and purchasing agent; J. O. Selman of Charleston, Okla., second vice-president, and B. E. Williams of Buffalo, secretary-treasurer.

### Sale of Railroad Confirmed.

The sale of the Fort Smith, Subiaco & Eastern Railway recently to the Commonwealth Trust Co. of St. Louis for \$50,000 has been confirmed by the Federal Court at Fort Smith, Ark., according to a report from there. The road is 14 miles long, from Paris via Subiaco to Scranton, Ark. It had been planned to extend it 26 miles farther to Dardanelle, Ark. Henry Stroupe of Paris, Ark., is president and Lovick P. Miles of Memphis, Tenn., vice-president. The receivers are I. H. Nakdimen of Fort Smith and Chas. H. Sommer of St. Louis. J. H. Wright is manager for the receivers. The sale had been protested on account of the price, but there was no other bidder, and it is further stated that operation was at a loss.

### Plan to Build a Connecting Railroad.

Construction of a railroad 25 or 30 miles long is projected by the Greenbrier & Eastern Railroad Co., capital stock \$50,000, which has just been chartered in West Virginia for a line from Rainelle to Richwood, in that State. Rainelle is a terminus of the Sewell Valley Railroad, a branch of the Chesapeake & Ohio Railway, in Greenbrier county, and Richwood is a terminus of a branch of the Baltimore & Ohio Railroad in Nicholas county, to the northward. The incorporators of the new company are Angus W. MacDonald, V. L. Black, B. B. Brown, L. G. Summerfield and O. P. Fitzgerald, all of Charleston, W. Va.

### Officers Appointed.

W. F. Kaderly has been appointed superintendent of motive power of the Southern Railroad Lines East, with office at Charlotte, N. C., succeeding E. C. Sasser, resigned to engage in other business.

W. A. Winburn has been appointed Federal manager of the Augusta Southern Railroad and the Georgia & Florida Railroad, with office at Savannah, Ga.

### Railroad May Be Sold.

The Louisiana & Northwest Railroad, 115 miles long, from Natchitoches, La., to McNeil, Ark., may be sold, according to an order issued by the Federal Court at Shreveport, La., to satisfy the mortgage on the road. The company is granted 20 days to file reply.

## Good Roads and Streets

### Bonds Voted.

Danbury, N. C.—Stokes county voted \$35,000 bonds to improve roads. Monticello, Miss.—Lawrence county will construct roads, for which \$24,000 bonds have been issued.

New Iberia, La.—Iberia parish will issue \$55,000 bonds for road construction, previously authorized at election.

### Bonds to Be Voted.

Miami Beach, Fla.—City contemplates \$50,000 bond issue to repair and pave streets.

Milton, Fla.—Santa Rosa county will issue \$80,000 bonds for road surfacing.

New Iberia, La.—Iberia parish will vote February 27 on \$137,000 bonds to construct roads.

Vernon, Tex.—City will issue \$30,000 bonds for street improvements. Weatherford, Tex.—Parker county votes March 1 on \$400,000 bonds for road construction.

Weatherford, Tex.—City votes April 1 on \$60,000 to pave streets.

### Contracts Awarded.

Cisco, Tex.—City awarded contract at \$54,000 for 40,000 square yards of street paving.

Devall Bluff, Ark.—Prairie county awarded \$76,000 contract for road construction.

Galveston, Tex.—Galveston county let contract at about \$19,000 for road resurfacing.

Lakeland, Fla.—City awarded contract for 4 miles of asphalt paving, \$80,000 being available.

Winston-Salem, N. C.—City let contract at about \$15,000 for 5184 square yards of street paving.

McAllen, Tex.—City awarded \$75,000 contract for street improvements.

### Contracts to Be Awarded.

Albany, Tex.—Shackelford county will construct 11.2 miles of road, costing \$62,000.

Austin, Tex.—State will construct 80 miles of macadam highway.

Antlers, Okla.—City will construct 2 miles of cement sidewalks.

Benton, Mo.—Scott county has \$600,000 available to construct gravel roads.

Centerville, Tex.—Leon county contemplates expending \$146,000 for road construction.

Charlotte, N. C.—City will expend \$85,000 for street paving.

Danville, Ark.—Yell county will construct 57 miles of asphalt macadam road and 3 miles of graded road, for which bids were opened February 3.

Fairmont, W. Va.—Marion county will receive bids until March 6 to construct 6 miles of roads and streets.

Fort Lauderdale, Fla.—City will expend \$50,000 to construct 30,000 square yards of street paving and concrete sidewalks.

Fort Pierce, Fla.—St. Lucie county plans \$70,000 expenditure for road construction.

Fort Worth, Tex.—City will expend \$30,000 to \$40,000 for street paving.

Guntersville, Ala.—Marshall county has \$30,000 available for grading and hard surfacing 8 miles of road.

Hamlin, W. Va.—Lincoln county has \$590,000 available to construct 104 miles of road, and will open bids February 29.

Jacksonville, Fla.—Duval county will open bids February 16 for 1 mile of brick highway.

Liberty, Mo.—Clay county has \$225,000 available for road construction, probably bituminous macadam surfacing.

New Iberia, La.—City invites bids until March 10 to construct 35,000 square yards of brick, wood block, sheet asphalt, concrete or bitulithic pavement.

Pascagoula, Miss.—City will receive bids until March 11 for street improvements, including 26,750 square yards of pavement, curbing, guttering, etc.

Pensacola, Fla.—City has \$30,000 available for street paving, etc.

Pineville, W. Va.—Wyoming county contemplates grading 4½ miles of road and constructing 3 arch bridges at cost of \$70,000.

Ripley, W. Va.—Jackson county has \$50,000 available for construction of 2 miles of concrete highway.

Selma, Ala.—Dallas county will resurface 51 miles of road.

St. Louis, Mo.—City authorized resumption of street improvements, and invites bids until March 4 for paving sections of 21 streets with brick, wood block, etc., estimated to cost \$500,000.

Tusculum, Ala.—City will construct about 2½ miles of concrete or asphalt street paving, 2 miles of sidewalks and 4 rows of curbing 2 miles long.

Winston-Salem, N. C.—City will construct bitulithic and asphaltic concrete street paving, costing \$300,000 to \$300,000.

## Large Road-Building Funds Being Provided in North Carolina.

Raleigh, N. C., January 31.—[Special.]—The movement for good roads and for the raising of \$2,230,000 to meet the like sum set apart under this condition by the United States to North Carolina, is in full swing. The legislative committees on roads today reported unanimously in favor of a highway tax of 75 cents on each automobile horse-power. It was at first proposed to make the tax \$1 per horse-power. In the course of the discussion of the measure a letter from Senator Bankhead was read, saying Congress will appropriate \$100,000,000 for roads. The unanimous opinion of the legislative committee on roads is that there should be an end of what is known as the county system of highway construction, as it is really a State-wide proposition, and the matter can in no other way be handled. It is also the opinion that State convicts should be worked on highways. Now only what are known as county convicts are thus worked. The automobile owners, it is pointed out by the committee, will save in two months' time an amount equal to the proposed tax of 75 cents per horse-power by reason of the lessening of wear and tear of their vehicles, thanks to the good roads. It was also stated that no automobile owners object to the tax, all the proceeds of which go solely to road construction and maintenance.

The committees have made a careful study of the yield of funds from this tax, and find that there are now 74,230 automobiles in North Carolina; the estimate of the number for the year ending June 30, 1920, is 100,000, in round figures; the amount collected the first year will be \$1,800,000. This will make necessary a first-year issue of bonds to the amount of \$425,000; these to be five-year bonds, and the carefully calculated increase in receipts will in the five-year period take up these bonds. With a 20 per cent. annual increase in the number of automobiles for 10 years, at 75 cents per horse-power tax, the total yield of revenue will be \$46,725,626, and at 10 per cent. increase \$28,287,355. The Federal aid for the 10-year period at the present rate of appropriation will be \$22,000,000. The bill to be presented will cover the bond issue referred to above. It will be the most important, most comprehensive and the most practical highway measure ever before a North Carolina Legislature.

## Victory Highways to Commemorate Our Soldiers' Victories.

By WINDSOR T. WHITE, President, The White Company, Cleveland, Ohio.

Traversing the Campagna di Roma, Italy, is the world's most historic highway. Time and foe have all but blotted out the grandeur of ancient Rome, but the Appian Way, in almost perfect condition, has withstood the ravages of 22 centuries. It stands today a monument to Roman road-building skill and an endorsement of the part played by good roads in enabling the Roman Empire for so long a time to subdue every would-be conqueror.

France is triumphant today because she has long recognized the military value of good roads. In winning the war, summed up by Lord Curzon as a "victory of Allied motors over German railroads," the highways of France were of vital importance. Verdun was saved, the great Somme defense made possible the Chateau Thierry victory achieved through the ability of French roads to carry steadfastly the mighty engines of Mars. And France plans to further her excellent system of highways by building a Sacred Way from Alsace to the North Sea, as a fitting monument to her valiant troops.

We of America are discussing suitable memorials to our fallen and returning troops. Shall such memorials be cold, useless and often unseemly shafts of stone, or useful, educating and health-giving highways—Victory Highways?

More monuments, perhaps, have been erected to the honor of the immortal Lincoln than to any other man. Yet are any of these as beneficial from any standpoint as the great Lincoln Highway which bands the continent?

Investigators tell us that the economic and moral fiber of any community is determined by the condition of its highways. Not by its schools, nor its church spires, nor its banks, nor its factory chimneys, but by its roads! Give a community the right kind of

roads, and these other indications of advancement are sure to follow.

What more fitting monument, then, can we build in honor of our heroes than memorial roads? How can any State, county or community better stabilize the achievements of its valiant sons than in a permanent road dedicated to them? And all of these to be planned and built so as to form a great system of victory highways.

Victory highways, that the lasting defense of America shall be made certain. Victory highways, on which schools will be erected to teach our children the arts of peace. Victory highways, over which food will move from farm to city and manufactured products back to the land.

We may study to obtain the most magnificent effects in stone and bronze and marble; we may plan to erect shafts to the very clouds; we may hope to dwarf anything that has been done in colossal architecture. But nowhere can we find a better way to appropriate the memorial offerings of a grateful nation than in the construction of permanent roads which in their completion will form a great system of victory highways.

## Sixtieth Anniversary of the Matthew Addy Company.

The sixtieth anniversary of the business of the Matthew Addy Company, Cincinnati, O., was commemorated by a dinner at the Queen City Club on Wednesday evening, January 29. It is gratifying to observe that the business, which has always been successful, is now larger and more extended than ever before, and, moreover, the anniversary announcement notes the impressive fact that the company is doing business today with the grandsons of the first customers of the house.

A historical sketch by President James A. Green says that Matthew Addy in 1859 started in the iron business at Cincinnati and conducted it with great success until his death, in 1896, his dying request to his associates being that they continue the business in his name. "With rare generosity and foresight he provided ample capital for this purpose, which capital his associates, of course, repaid presently to his estate. \* \* \* The name of Matthew Addy stands for all that is best in business."

"When Mr. Addy began business the Lake Superior ore deposits were unknown, the Birmingham district was not discovered, Pittsburgh was the iron center, but of minor importance, and the country depended for much of its manufactured iron, and even raw iron, on England. His real trade consisted of Hanging Rock charcoal irons. There were 70 furnaces in the Hanging Rock district, but all of them together were not able to make as much iron in a day as does one of the large blast furnaces of the present time. Nothing was known of analysis. Buyers would often select iron pig by pig, estimating quality by the fractured surface, this being at the public landing, for the iron was conveyed down the Ohio River to Cincinnati. When it had to be hauled, it was done mostly by teams. A railroad car carried nine tons; now 50 tons per car is not uncommon. Then there was no national bank system. Just beyond St. Louis were the Indians and the buffaloes. There was no railroad to the Pacific coast; no bridge over the Ohio or the Mississippi. But it was a world of tremendous possibility. We can look around feeling that we have done well with our inheritance, but we ask whether or not our successors 60 years hence, celebrating a similar anniversary, may not regard us as living in a narrow and contracted age."

The officers and directors of the Matthew Addy Company are James A. Green, president; Benj. N. Ford, vice-president; William W. Hearne, vice-president; A. Burt Champion, secretary; R. M. Lambert, treasurer.

## Extending Use of Laminated Construction.

A method of making laminated gunstocks was developed at the Forest Products Laboratory at Madison, Wis., which would, without reducing the strength, permit the use of the small pieces of walnut not suitable for single-piece stocks. This would facilitate production and result in appreciable saving in costs and material.

The application of laminated construction to many articles of trade is an interesting development. Shoe lasts, bowling pins, saddletrees, cars and paddles, tanks, barrels and kegs, and various parts of vehicles and agricultural instruments may possibly be constructed with laminated wood.

## Commendations, Kicks and Comments

### Likes the New Dress.

A. W. ALTHOFF, Oklahoma City, Okla.—I think the new dress of the MANUFACTURERS RECORD is fine. It meets with my approval. It is up to date.

### "Long Live the Record!"

W. B. WEBB, Fancy Groceries and General Store, Sergeant, Ky.—I enclose check on my subscription to MANUFACTURERS RECORD. I cannot do without the paper. Keep up the good work against German atrocities and crimes. Long live the MANUFACTURERS RECORD!

### Rendering Important Service.

F. ROGER MILLER, General Secretary Macon Chamber of Commerce, Macon, Ga.—Our subscription to the MANUFACTURERS RECORD will be promptly renewed. You are rendering very important service to the South and to the nation, and should have the hearty support of commercial organizations generally.

### Congratulations Offered on New Form.

A. L. WARE, President Acups Creek Coal Co., Inc., Jeff, Ky.—Accept congratulations on the new form of the MANUFACTURERS RECORD. Its convenience for carrying, as well as filing, will be appreciated by your many friends.

### Changed Form Very Attractive.

C. G. PADGETT, Vice-President the First National Bank, Walterboro, S. C.—We are enclosing our cashier's check for \$6.50, and will thank you to send your MANUFACTURERS RECORD to Mr. M. G. Gruber of this city.

Your new form makes a very attractive appearance, and we wish to congratulate you upon making this change.

### Looked For More Eagerly Than Any Other Publication.

FRANK LINDLEY, Lindley, Penwell & Lindley, Attorneys and Counselors, Danville, Ill.—Your journal is the most interesting publication that comes to my residence. I look for it more eagerly than I do for any other publication. It is always full of good news, and the editor is so intensively loyal to his country that I feel as though I must take it. Go on with your good work!

### War Policy Just Right.

JAS. A. DEZELL, President the Dezell Enterprise Co., Greensboro, Fla.—We have greatly enjoyed reading your paper, for the past four years most especially. We have come to believe that your prophesy is always right; it has been so far in relation to the war, and we hope that the punishment will be dealt out to the Hun just to your satisfaction. Your policy toward the war is just right. We enclose \$6.50 for our subscription.

### Though Almost "Unbelievable," We Hope to Do Still Better.

CHAS. F. MCGINTY, Burt & Griffith, Oil Producers, Houston, Tex.—I wish to express my sincere appreciation and admiration to the publishers of the MANUFACTURERS RECORD for the valuable pages of reading and advertising pages contained within the handsome covers now coming into our office. It is almost unbelievable that so much can be accumulated and handed to us every week in the year for only \$6.50. Believe me when I say, "You are pleasing a vast number of readers."

### Foremost in Americanism.

FRANK BETHUNE, Building Specialties, New Orleans, La.—Inclosed I hand you my check of \$6.50 for subscription to the MANUFACTURERS RECORD for 1919. I have two reasons for subscribing to your paper; first and foremost, for your extreme Americanism. I like the tone of your paper, and the vigorous things you say should be spread as broadcast as possible, and should have the support of every thinking man. In the second place, your paper helps me in my business. I get a great deal of my information direct from my own territory, and usually know what is going on; that is the reason I put loyalty to the country first.

### "The Very Best Advertising Medium in America."

J. S. BOONE, Oconee Brick & Tile Co., Milledgeville, Ga.—We would thank you to please discontinue our for sale ad. of locomotive, as we have sold this machine. We sold this locomotive through your columns, and in this connection wish to advise you that we consider the MANUFACTURERS RECORD the very best advertising medium in America. We have advertised with you for the last eight years continuously, and our relations have been pleasant and satisfactory in every way.

## TEXTILE

### Sample American Looms Desired by the Textile College, Nantungchow.

There is appended an extract from a letter of Frank Garrett, chairman of the Advisory Committee, Foreign Christian Missionary Society, Nantungchow, Kiangsu, who is anxious to have American looms installed in Chinese cotton mills, and believes progress may be made along this line if the proper effort were made. His letter follows:

"I recently visited some of my friends who are teachers in the Textile College here, which is connected with the large cotton mills. I found they were lacking in modern looms, and were very anxious to get a few from America as samples and for use in the practice-rooms of the college. They informed me that the American firms have refused to sell in small quantities. An English firm had offered looms at half price for the schools.

"I was surprised that an American company would not see the splendid opportunity for advertising which this offers. The 120 students in this college as they go out year by year to positions as directors and managers of cotton mills will wish to use machinery with which they have familiarized themselves in college. I wish you would call the attention of some of the American firms to this opportunity, that American machinery may find its place in this large and developing industry."

### Knitting Mill at Radford.

Paul Knitting Mills, Pulaski, Va., will operate mill at Radford, Va., with 50 knitting machines and 10 loopers, using electric power. Thirty employees at the beginning. Capacity 300 dozen daily of half-hose. Will occupy brick building 30x95 feet, already completed. Capital stock \$100,000. M. L. Victorius is president; S. L. Eskridge, vice-president; S. Bissinger, secretary; S. V. Victorius, treasurer; Thos. J. Wallner, manager, all at Pulaski, Va.

### Cotton Mills' Capital Increased \$2,000,000.

The Riverside & Dan River Cotton Mills, Danville, Va., have increased their common stock by \$2,000,000, so that it now totals \$6,000,000. The new shares will be disposed of to the stockholders in the proportion of one share of new stock for every two shares of old stock held by them. The proceeds, it is stated, will be used to pay off current obligations and also to provide capital for carrying a large stock of raw material. The aggregate capitalization of the mills, it is further remarked, is now \$12,000,000.

### Textile Notes.

Blue Ridge Cotton Mills of Blue Ridge, N. C., capital \$100,000 authorized, with \$25,000 subscribed, are chartered. Incorporators are B. M. Spratt, W. L. Heffner, G. C. Mauney, all of Maiden, N. C.

### Street Paving at Pascagoula.

Pascagoula, Miss., January 30—[Special.]—Bonds to the amount of \$165,000 have been authorized by the taxpayers of Pascagoula for the purpose of paving the principal streets of the city and for the construction of a sewerage and drainage system. The work will begin as soon as the bonds are sold and the contracts awarded.

### Mrs. West a Railway President.

Mrs. W. S. West has been elected president and general manager of the Valdosta Street Railway Co. of Valdosta, Ga., to fill the vacancy caused by the recent death of Col. Eugene West. A. H. West of Jacksonville, Fla., was elected vice-president; Fred W. Hoyt of the same city, secretary and treasurer; T. J. Christie, general superintendent, and E. K. Wilcox, attorney. Mr. Hoyt is of the American Trust Co., executor of the West estate.

## MECHANICAL

### New Type Light Shovel or Crane.

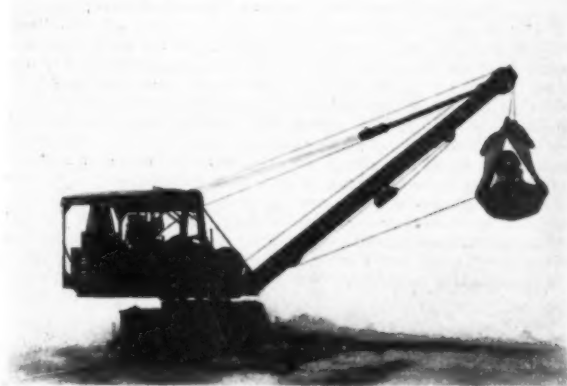
A new type of machine shovel or crane designed to meet the needs of contractors and industrial plants, whose requirements have attained a wider range in the reconstruction period following the war, has made its appearance. It is a light, portable machine of low operating expense, yet entirely reliable for ordinary excavating if large outputs are not necessary. It is not intended to take the place of larger shovels of the same sort, although in many cases it will meet needs equally as well as they. It answers the demand for a light machine which will not injure pavements



MACHINE USED AS A SHOVEL.

and which can be readily moved over roads and bridges that cannot sustain larger shovels. It weighs only 14 tons, and regularly uses a one-half-yard dipper. It will dig any clay, earth or thoroughly blasted material at the conservative rate of one complete dipper a minute, or 300 cubic yards a day.

The shovel, with very small changes, may be equipped for steam, electric or gasoline operation, and the change from one power to the other can be readily made in the field and at a reasonable expense. Independent double reversing engines are employed for hoisting, crowding and swinging when the power is steam. For electric and gasoline service a single motor is used, operating at constant speeds. The various motions are controlled through reversing frictions. Equipped as a shovel, the machine



MACHINE USED AS A CRANE.

is regularly mounted on a truck with wide-tired traction wheels, and has both hand and power steer. It propels itself at the rate of about 1½ miles per hour. The shovel boom has special advantages for light work, and is peculiarly suited to single motor electric or gasoline power.

By adding an auxiliary shaft carrying two drums, and substituting a longer and lighter boom, the shovel may be converted into a crane capable of handling a one-half-yard clamshell bucket,

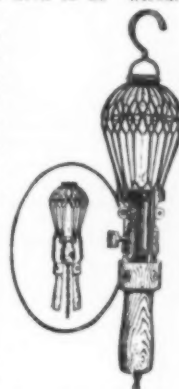
with a working radius of 25 feet. With electric or gasoline power the auxiliary shaft controls the dipper crowding motion. All drums are power-driven. The machine is quickly adapted to clamshell or scraper service. It is also mounted upon special trucks if wanted for foreign military use. The military traction truck was designed to secure a five-ton crane, hauled by a motor truck at speeds up to 10 miles an hour, but this truck is also self-propelling and uses gasoline power. For narrow-gauge industrial railways the crane superstructure is mounted on double trucks, distributing weight over eight wheels. The use of jacks or outriggers is required on these narrow railways, but with them 10,000 pounds may be handled by the crane.

This new machine, which is of the Type 00 Series, is manufactured by the Thew Automatic Shovel Co., Lorain, O. More than 50 of them have already been sold.

### New Departure in Lamp Guards.

A new portable lamp guard with split handle is shown in the accompanying illustration. It successfully meets a demand for a substantial "handle guard" which does not need to be "wired."

The halves of the guard, including the handle itself, open wide from the hinge at the bottom of the guard, and can instantly be closed and locked around the socket at the end of any extension cord. The cord itself runs through grooves in the handle. The convenience of this new product will be appreciated by the motorist in his garage, as well as in every factory, mill or warehouse, because it permits light to be safely carried to dark corners. Fire danger is avoided, and lamp users readily perceive its advantage and economy, as the modest cost of the guard is quickly repaid through prevention of lamp breakage. It is known as the Flexco split handle, and it can be quickly attached to the well-known Flexco expanded steel lamp guards made by the Flexible Steel Lacing Co. of Chicago.

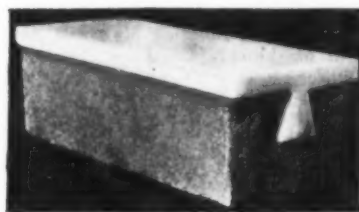


New Lamp Guard.

### "Marbalglas," New Product.

A product heretofore known as glass brick and now as "marbalglas" is a building brick with a glass face and backing of concrete. In size and shape it conforms to common brick. In appearance it presents a high polished surface, harder than marble, with a dense structure. The brick is made in white or colors. It is impervious to the action of the elements or of acids, does not

chip or break, and can be washed without absorbing water. These characteristics make it sanitary. The white brick can be used for exteriors in the place of terra-cotta, while for interiors it is admirably adapted to those places where a strong reflection of available sunlight is desired. The colored



"MARBALGLAS" BRICK AS IT IS.

or tinted brick may be used for ornamental purposes on exteriors, and for highly decorative effects in interiors for either walls or mantels. The range of colors is unlimited. Where marbalglas is to be used at a distant point it has been found economical to ship only the face of the brick and allow the concrete backing to be applied at the point of use. There is also marbalglas wall and floor tile, the latter being of a dull finish. The product lends itself naturally to a grouping of harmonious colors. It has also been used in the manufacture of mosaics and it has been found that the action of marbalglas is superior to an imported colored glass because of the homogeneity of its structure.

The Lawton Marbalglas Co., Cincinnati, O., is being put on a larger and stronger footing in preparation for the expected resumption of building business, and arrangements are being made for a larger output. An effort will accordingly be made to procure a world market for this product. An attractive catalogue showing a wide variety of the brick and tile has been prepared for distribution among builders and contractors.

## FOREIGN NEEDS

### Interested in Flour, Groceries, Machinery, Etc.

E. O. RUBIO, Apartado 1025, Havana, Cuba.—I want to act as selling agent for American goods. I am interested in wheat flour first; also fine groceries, staple goods; machinery, dry goods on certain limit, and novelties in enameled ware, but flour is the main business.

### Food Lines Preferred.

MARTINEZ & MORALES, San Juan, Porto Rico.—We have recently reorganized our firm, increasing the capital. We are just opening an office in San Domingo to wait on our trade. We want to represent firms on a commission basis or otherwise. We prefer food lines in general.

### American Specialties.

F. LABBE, 2 Rue Grenette, Lyons, France.—In conjunction with a large manufacturer of this region we want to develop demand in France for any American specialties, large or small goods, apparatus, motors, machines, chemical and other products. Would like to have addresses of important sugar factories.

### Metals, Machinery and General Merchandise.

A. A. TROYO, 95 Liberty St., Room 507, New York.—I am a citizen of Costa Rica, and am returning to that country and to Cuba as salesman for Mr. Gabriel Unwin at this address, an exporter of metals, machinery and general goods. Am interested in hearing from manufacturers of pianos, typewriters, hardware, automobiles and supplies, machinery for small industries, and any other finished or unfinished American products.

### Pens, Pencils, Hosiery, Toilet Articles, Etc.

INDO-AMERICAN TRADING CO., general merchants, head office 18 Noor Mahomed Sircar Lane, Calcutta, India.—We are interested in penholders, lead and colored pencils, rolled gold and gold-filled articles, transfer pictures, combs, fountain and stylo pens, hosiery, underwear, shoe laces, perfumery, tooth and hair brushes, shaving brushes, toilet articles, novelties, etc. Would like to hear from manufacturers.

### Agencies Wanted in Guatemala.

J. BROLO Y CO., general commission brokers, Guatemala, Central America.—We are in the general commission business and deal with the best houses in the country; therefore, any American house wishing live representatives here would do well to get in touch with us. We have traveling salesmen who cover all this country. Catalogues and prices desired.

### Would Represent Manufacturers of Building Materials and Farm Machinery.

BERNARDO GARCIA, Import and export commission merchant and manufacturers' agent, Apartado 233, Cienfuegos, Cuba.—I would like to get the direct and exclusive representation of firms manufacturing barb wire, tin plate, corrugated and plain sheets for roofing, roofing paper, iron pipes and accessories, reliable Portland cement, agricultural implements, machinery for cane sugar manufacturing and pine lumber direct from mill.

### Machinery, Tools, Chemicals, Foods, Etc.

A. A. FENDIAN, 32 Kasr-El-Nil St., Cairo, Egypt.—Thanks to the wonderful success of the Allies, I am preparing to start again operations with American manufacturers, selling in Egypt, Palestine, Syria, Armenia and surrounding Eastern countries. In addition to being an importer and dealer in high-class machinery, tools and supplies for engineering and contracting, I have an import and export department, handling manufacturers' lines, including all classes of goods and raw materials, such as chemicals, food products, etc.

### Household Articles—Ladies' Wear.

MULDERS & CO., Import and export commission merchants, 24 Rue du Mont Blanc, Geneva, Switzerland.—Would like to represent American manufacturers of housefurnishing goods, and desire catalogues to select from them articles which would be most in demand. Sell all kinds of household articles, from clocks to cutlery. Headquarters in Belgium at 25 Rue Grande Ourse, Antwerp, but pending the end of hostilities at the Geneva address. Besides handling general housefurnishing articles there are also sold ornaments, such as vases, statuettes, carved ivory and wood, etc., besides various things of ladies' wear.

### Agency Wanted for Sundry Products.

JUAN R. PEREZ, Santo Domingo, D. R.—I am interested in representing manufacturers of lumber, cement, meats (fresh and salted), cotton oil, rice, glassware, furniture, enamelware, etc., and would like to hear from them. Correspondence in English, French and Spanish.

### Hardware, Cooking Utensils, Etc.

M. CAPELA, 9 Place Vintimille, Paris, France.—We would like to be commercial representatives for our country and its colonies, also for Belgium, of the following: Hardware, cooking utensils, gas appliances, pencils and colors, office fixtures, etc., all of American manufacture. (Strictly.) At this writing I am in the aviation service, and expect my discharge in March or April.

### Windmills for Various Power Purposes.

SWINBURNE & HARDIE, engineers, Milburn House (A), Newcastle-on-Tyne, England.—We think that in the devastated regions of France, Belgium and Italy, except where water-power is available, windmills may again perform come into consideration (for purposes other than pumping), and we should be glad to hear of any development in that direction. Stringent regulations enforcing economy in fuel have stimulated business in appliances used on steam and electric plants. We shall be glad to hear of any windmills designed for other purposes than pumping, though we will handle inquiries for the latter also.

### Rattan Cane, Cane Wood, Bamboo, Etc.

MCCORMICK BROS., East Brook Street, Freetown, Sierra Leone, West Coast Africa.—We take the liberty of forwarding a few samples of rattan cane and cane wood which we believe will be of interest to manufacturers. We recently received quotations from New York, and are now preparing our first lot of 30 tons to go forward. We would wish to see removal of restrictions placed during the war by your Government on such commodities as rattan cane, cane rope, cane wood, oil, and vegetable seeds. We include also bamboo cane for quotation; this can be supplied in lengths from 14 to 16 feet and in quantities from 50 tons upward.

### Hardware, Tools and Foodstuffs Needed.

GEORGE HALL, Guni Railroad Station, Niger Province, Nigeria, West Africa.—The outlook for practically any United States product ought to be good here. Picks, shovels, hardening steel, folding sluice and streaming boxes of metal should meet with ready sale. White ants are a great trouble here. All kinds of edge tools, push drills operated by hand are badly needed, also jack planes and other carpenter tools of all kinds; canned salmon, sardines, salt beef, biscuits, cotton cloths, shoes etc. Tin is found here in placer deposits, also other odd minerals not yet exported. I have found several large deposits of fancy marble, but have made no attempt to secure rights from the Government. The business interests of the States should get busy and send a consul here—a man equal to the occasion. He could take up agency work and be of great service.

### Representative for Various Manufacturers.

M. V. CACARIE, Lieut.-Commandant in 1re C. R. du 208 Reg. D'art de Cam, Secteur Postale 128, France.—At the front since the beginning of the war, as an officer of artillery, I plan soon to return to my home and resume business. My object is to find important producing houses, already organized and ready to deliver, which will permit me to offer at once articles for building, sanitation, medical service, surgical service, agricultural and wine-making work. Shall be most interested in sanitary porcelain ware, sandstone or sanitary pottery ware, enameled cast-iron bath tubs, fixtures, etc., of leather for the installation of hydrotherapy, steam-heating apparatus, etc.; cast-iron and bronze water gates, fittings for medical and surgical service, sterilizing apparatus, fixtures for cooking and heating by gas and electricity, gas and electric lighting fixtures, farming machinery and wine-making machinery. Would represent manufacturers, etc.

### Iron and Steel Goods—Textile Machinery.

EASTERN TRADING CO., 30 Meadows Street, Bombay, India.—We wish to buy and carry in stock all kinds of iron and steel goods, such as bars of all sizes and shapes, steel hoops, structural iron and steel, tank plates, ship plates, steam engines, boilers, dynamos shaftings, turned and cold pressed; steel and wrought-iron split pulleys, hangers, rails of from 15 to 100 pounds, drilling, shaping and milling machines, belting, leather, rubber and canvas; all goods and machinery required in a textile mill, such as scutchers, carding engines, mules, ring frames, drawing frames, doubling and winding frames, looms, ordinary, Dobbies, Northrops and others; all repair parts for this machinery; also all kinds of bobbins, shuttles, etc.; all kinds of lubricating oils and greases. Have opened branch office at Calcutta. Our partners have their own mills and factories, and are large consumers of such machinery and goods.

# Construction Department

## EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

## DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

## Airplane Plants, Stations, Etc.

Tex., Galveston—Naval Air Station.—Navy Dept., Lieut. L. B. Hyde, Chief Engr. Air Service of Galveston, American National Insurance Bldg., let contract Horton & Horton, Houston, at \$148,900 to erect shops and industrial buildings at United States Naval Air Station. (Latest noted.)

Tex., Galveston—Hangars.—Navy Dept., Washington, D. C., rejected bids to erect hangars; will soon invite new bids. (Latest noted.)

## Bridges, Culverts, Viaducts.

Ark., Danville.—Yell county will construct 140-ft. steel bridge over Gafford Creek and 310-ft. steel bridge over Fourche River, both sites being near Bluffton; concrete abutments, piers and steel tubing; bids received until Feb. 3; I. R. Packard, Engr., Plainview, Ark. (See Machinery Wanted—Bridge Construction.)

Ark., Fort Smith.—Comms. Sebastian Bridge Dist., Roy M. Johnson, Secy., let contract to M. M. Elkan of Macon, Ga., at \$538,000 to construct bridge across Arkansas River, connecting Fort Smith with Oklahoma; length 3186 ft.; concrete throughout; 28-ft. roadway; 5-ft. walkways; Hedrick & Hedrick, Consol. Engrs., 506 Interstate Bldg., Kansas City, Mo. (Latest noted inviting bids.)

Ark., Little Rock.—Pulaski County Comms. let contract to Miller-Butterworth Construction Co., Southern Trust Bldg., Little Rock, to construct bridge across Arkansas River at Broadway St., between cities of Little Rock and North Little Rock; 1,680,000 lbs. reinforcing steel, 12,000 sq. yds. wood block pavement, 23,400 cu. yds. earth embankment; Hedrick & Hedrick, Engrs., 506 Interstate Bldg., Kansas City, Mo. (Latest noted inviting bids.)

Ga., Quitman.—Brooks County Comms. will construct latest-noted bridge and roadway; cost \$30,000; open bids Feb. 5; Garrett & Slack, Engrs., Montgomery, Ala. (See Machinery Wanted—Bridge Construction.)

Ga., Hawkinsville.—Pulaski County Comms. will construct bridge over Ocmulgee River, at Hawkinsville.

Ga., Dublin.—Laurens County Comms. will construct concrete bridge across Oconee River at Dublin; \$150,000 available.

Miss., Lexington.—Holmes County Supvs. will construct bridge across Harland's Creek; bids opened in February; J. H. Fuqua, Clerk of Board.

Mo., Centralia.—Audrain County, R. B. Cauthorn, Clk., will build two 25-ft. concrete girder spans up-on concrete abutments and pier, over Youngs Creek, near Centralia; date of opening bids not set; also construct graded earth road from Mexico to Boone County line;

A. W. Graham, State Highway Engr. (Latest noted.)

Mo., Versailles.—Morgan County Comms. building bridge; cost \$4000.

N. C., Charlotte.—Mecklenburg County Comms., Charlotte, and York County Comms., York, S. C., will construct bridge across Catawba River, connecting 2 counties.

Okla., Union City.—Canadian County Comms., El Reno, Okla., will construct 51-ft. low-water bridge, concrete and piling; estimated cost \$25,924; bids opened Feb. 4; H. G. Powell, El Reno, Engr. (Latest noted.)

S. C., Charleston.—Charleston County, Sanitary and Drainage Comsn., plans to construct bridge across Ashley River.

Tenn., Knoxville.—City will vote March 11 on \$200,000 bonds to construct reinforced concrete viaduct over Southern Railway tracks on Gay St.; J. B. McCalla, City Engr. (Previously noted.)

Tex., Albany.—Shackelford County, Proctor K. Clarke, Engr., will construct 2 bridges, cost \$2500; plans completed. (See Roads and Streets.)

Tex., Canadian.—Hemphill County, W. D. Fishbe, Judge, contemplates building bridge; cost \$2000.

Tex., Eagle Pass.—Maverick County Comms. plan expenditure of \$6000 for construction of 3 iron bridges on Uvalde Rd. E. H. Schmidt, County Judge.

Va., Abingdon.—W. H. Allen, Elizabethton, Tenn., has contract to construct bridge across Wolf Creek, 1 mi. west of Abingdon; abutments and piers of concrete; wood floor; E. S. McCorkle, Johnson City, Tenn., will supervise construction.

Va., Alleghany County.—Alleghany County Comms. let contract to R. A. Figgatt, 312 Terry Bldg., Roanoke, Va., to construct concrete bridge; cost \$3000.

Va., Bedford.—Bedford County Supvs. let contract to R. A. Figgatt, 312 Terry Bldg., Roanoke, Va., at \$6000 to construct three 25-ft. span concrete bridge; A. H. Pettigrew, Engr. (See Machinery Wanted—Mixer.)

Va., Botetourt County.—Botetourt County Comms. let contract to R. A. Figgatt, 312 Terry Bldg., Roanoke, Va., to construct 3 concrete bridges; cost \$3000 each.

W. Va., Buckhannon.—Upshur County Court, Ernest Phillips, Clerk, asks bids until March 3 to construct reinforced concrete arch bridge across Buckhannon River at Ours Mill. Supersedes recent item. (See Machinery Wanted—Bridge Construction.)

W. Va., Clarksburg.—City is considering bond issue to construct 8 bridges; Jos. N. Craddock, Mayor.

W. Va., Pineville.—Wyoming County Comms. plan to construct 3 arch bridges and grade

4½ mi. of road; 18 ft. wide; 40,000 cu. yds. grading; cost \$70,000; work under supervision of A. B. Shannon, County Road Engr.

## Canning and Packing Plants.

Ala., Birmingham.—Pan-American Food Products Co. purchased and will remodel buildings for cannery; install machinery; daily capacity 20,000 to 40,000 cans.

Fla., Moore Haven.—Everglades Grower Assn. will remodel building for packing plant.

Ky., Owensboro.—Owensboro Products Co., capital \$500,000, organized with F. D. Strickler, Pres.; E. T. Franks, V.-P.; E. T. Alexander, Secy.-Treas.; acquired Rock Springs Distilling Co.'s plant and will remodel for cannery; also manufacture stock feed.

Mo., Golden Hill.—W. F. Applegate Tomato Canning Factory will erect 80x175-ft. building; wooden frame, iron roof; open bids Feb. 1; install tomato-canning machinery. (See Machinery Wanted—Canning Machinery.)

Va., Norfolk.—Banks Bros. Packing Co. is proceeding with construction of meat-packing plant; day labor; Archts., D. E. Washington, Kansas City, Mo., and Chas. C. Wilson, Columbia, S. C. (Noted in Dec.)

W. Va., Wheeling.—C. Kallbitzer Packing Co. increased capital from \$200,000 to \$400,000.

## Clayworking Plants.

Miss., Jackson.—Bricks.—Currie-Finch Brick & Lumber Co., capital \$30,000, organized by T. K. Currie (Pres., Central Lumber Co.) and Henry P. Finch; will install brick plant.

Tex., Port Arthur.—Brick.—Port Arthur Board of Trade, G. H. Eubank, Chrmn. Industrial Com., is interested in erection of plant to manufacture sand-lime brick. (See Machinery Wanted.)

## Coal Mines and Coke Ovens.

Ala., Birmingham.—Leeds Cahaba Coal Co., capital \$9000, inctpd.; M. J. Sharp, Pres.; W. R. Little, V.-P. and Treas.; T. B. Whitmire, Secy.

Ky., Evarts.—Cooper Ridge Coal Co., W. W. Evans, Secy., High Splint, Ky., lately noted increasing capital to \$75,000, has leased 450 to 500 acres to W. R. Grant, Pittsburgh, Ky. (See Ky., High Splint.)

Ky., High Splint.—W. R. Grant, Pittsburg, Ky., leased 450 to 500 acres; will develop. (See Ky., Evarts.)

Ky., Mayking.—Pine Creek Lumber & Coal Co. organized by T. L. Tackett, Enterprise, Ky., and E. R. Hay, Winchester, Ky.; will develop coal and timber lands. (See Lumber Manufacturing.)

Okla., Tulsa.—Pioneer Coal & Mining Co., capital \$200,000, inctpd. by R. B. Pugh and C. A. Coffey of Morris, Okla., and Arthur B. Roberts of Oklahoma City.

Okla., Panama.—Buck Creek Coal Co., capital \$15,000, inctpd. by A. W. Breckenridge, McAlester, Okla.; Thomas L. Tatum, Milton, Okla., and William T. Harper, Fort Smith, Ark.

Texas.—North Central Texas Coal Co., capital \$100,000, inctpd. by W. I. N. Lofland, Chas. H. Jones and Frank Jackson, all of Dover, Del.

W. Va., Gilmer.—S. A. Hayes, George Work

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

and C. T. Hiteshaw, all of Parkersburg, W. Va., and others purchased Gilmer fuel mine and will develop.

W. Va., Glen White.—E. E. White Coal Co. will erect coal tippie.

W. Va., Iroquois.—Iroquois Coal Mining Co., J. C. Hindsley, Supt., increased capital from \$50,000 to \$100,000; develops 1000 acres; daily output 250 tons.

### Concrete and Cement Plants.

Ark., Blytheville.—Concrete Blocks.—B. F. Brogden will erect concrete block factory; 50x140 ft.; concrete blocks.

N. C., Greensboro.—Septic Tanks.—Standard Cement Construction Co., Southern Bldg., purchased building 300 ft. long and will equip to manufacture one-piece double-compartment septic tanks. (Lately noted.)

### Cotton Compresses and Gins.

Tenn., Chattanooga.—Churchill Compress Co., Memphis, Tenn., leased cotton compress and warehouses of Chattanooga Warehouse & Compress Co. in North Chattanooga, and of Look-out Compress & Warehouse Co. in Alton Park; contemplates improvements to 2 plants costing \$100,000, including cotton compress (equipment purchased) and probably brick warehouse; present storage capacity 20,000 bales, to be increased to 30,000 bales.

### Cottonseed-Oil Mills.

Ark., Ashdown.—United Oil Mills, W. Y. Foster, Sr., Hope, Ark., Prest., will rebuild plant lately noted burned; mill-construction building, cost \$50,000; install machinery, cost \$150,000; date of opening building and machinery bids not set.

S. C., Batesburg.—Trice Oil Co. Incptd. by Ira C. Carson, J. C. Cullum and T. B. Kernham.

### Drainage Systems.

Fla., Hastings.—Hastings Drainage Dist. of St. Johns, Putnam and Flagler counties will construct 21 canals, ranging in size from 2-ft. to 10-ft. bottom to 8-ft. to 30-ft. bottom; open ditch construction; estimated cost \$149,609.69; opening of bids probably Feb. 20 to 25; will drain 22,445 acres for general farming; Ellis, Curtis & Kooker, Engrs., Jacksonville, Fla. (Lately noted to issue \$192,000 bonds.)

Fla., De Soto County.—W. B. Williams, St. Petersburg, Fla., lately noted as prepared to let drainage sub-contract, is contractor for drainage work of Limestone Drainage Dist., De Soto County, which work comprises construction of 10 mi. main canal and 20 mi. lateral ditches; to drain 16,000 acres for agriculture, etc.

Ga., Royston.—C. A. Glan is interested in drainage of Beaverdam Creek; 160,000 yds. excavation; 1200 yds. rock dipper dredge; issue \$38,000 bonds; will let contract Feb. 8. (See Machinery Wanted—Dredging.)

Mo., Sandy Hook.—Sandy Hook Drainage Dist. let contract to Pope Construction Co. of Jefferson City, Mo., at \$63,000 to construct drainage system.

Miss., Tunica.—Pritchard Drainage Dist. will construct 540,000 cu. yds. floating dredge work and 25,000 cu. yds. small levee work; Drainage Commrs., S. J. Houston, Prest., receive bids until Feb. 17; L. W. Mashburn, Engr., Clarksdale, Miss. (See Machinery Wanted—Dredging, etc.)

Mo., Jefferson City.—Capital Drainage Dist. of Cole County, J. H. Nolen, official in charge, issued \$65,000 bonds for drainage system.

Tenn., Brownsville.—Comms., Poplar Creek, Big Muddy Creek and Kail Creek in Drainage

Dists., Kinney & Wiles, Attys., let previously noted contract to N. C. McGimlen & Co., Memphis, Tenn., to construct Poplar Creek Canal, 145,670 cu. yds. excavation; F. M. Horton, 140 S. Dearborn St., Chicago, Big Muddy Creek Canal, 279,760 cu. yds. excavation; Indiana Dredging Co., Royal Center, Ind., Kail Creek Canal, 119,790 cu. yds. excavation. (Recent item incorrectly noted under Tex., Brownsville.)

Tex., Cleburne.—Johnson County Comms., contemplate drainage of 500 acres.

Va., Lynchburg.—Virginia Episcopal School, Rev. Dr. Robt. C. Jett, Principal, is interested in proposed installation of tiling to drain athletic field. (See Machinery Wanted—Tile.)

### Electric Plants.

Fla., Starke.—City is considering bond issue to improve power plant; also install ice-making machinery. Address The Mayor.

Ga., Atlanta.—City votes March 5 on \$300,000 bonds to construct electrical generating plant at crematory. H. L. Collier, Ch. of Constr.

Mo., Kansas City.—Kansas City Light & Power Co., 1500 Grand Ave., will erect electric sub-station at 31st St. and Robert Gillham Rd.

N. C., Shelby.—Double Shoals Cotton Mills will construct electric-light system for mill village.

S. C., Charleston.—Charleston Consolidated Railway, Gas & Electric Co. will hold meeting Mch. 19 to consider increasing common stock by \$1,500,000 to pay for improvements recently completed and now being installed; latter include enlargement of electric powerhouse, completion of duplicate transmission system from power plant to Port Terminal at North Charleston costing \$700,000, etc.

Tex., Alva.—Southwestern Utilities Co., capital \$500,000, Incptd. by Percy Jones, Alva; R. F. Rice, Lawrence, Kan., and Albert Manuel, New York.

Tex., San Benito.—San Benito Water & Electric Co. contemplates improvements.

### Flour, Feed and Meal Mills.

Ga., Lyerly.—Lyerly Milling Co., J. S. Owings, Mgr., will remodel lately-noted acquired Saring Mill property; install water-wheels, electric generator and motor. (See Machinery Wanted—Water-wheels; Motor.)

### Foundry and Machine Plants.

Ala., Birmingham.—Iron Pipe.—American Cast Iron Pipe Co. has purchased Beggs Pipe & Foundry Co.'s plant; is reported to improve and operate, manufacture iron pipe.

Fla., Jacksonville.—Foundry.—C. I. Capps Co., 514 Catherine St., organized; C. I. Capps, Prest.-Mgr.; S. R. Capps, V.-P.; L. J. Capps, Secy.; leased 50x100-ft. mill-construction building; purchased foundry equipment; contemplates adding electric furnace for steel, also lathes, grinders and drill presses for finishing brass; daily output 1500 to 2000 lbs. ship fittings and machinery, brass and aluminum castings. Lately noted Incptd. \$25,000 capital. (See Machinery Wanted—Furnaces.)

Ky., Ashland.—Trolley Wheels.—Thornton Trolley Wheel Co., P. M. Scott, Prest.-Mgr., 208 16th St., will erect building; probably fireproof; plans not decided; install lathes, milling machines, grinders, brass crucible, hydraulic press; daily output about 600 trolley wheels. (See Machinery Wanted—Foundry Equipment.)

Md., Baltimore.—Machine Shop.—Magneto & Machine Co., 1031 Cathedral St., will have plans prepared by Walter M. Gieske, 65 Gun-

ther Bldg., Baltimore, for addition to machine shop; 1 story; cost \$5000. (Lately noted.)

Md., Indian Head.—Machine-shop Addition, etc.—Navy Dept., Washington, D. C., will erect addition to machine shop, brick and steel presshouse, accumulator-houses Nos. 1 and 2, etc.; bids opened Jan. 20.

Mo., St. Louis.—Stoves.—Bridge & Beach Mfg. Co., H. C. Hoener, V.-P., 2d and Valentine Sts., will build plant; 2 stories.

N. C., Shelby.—Machine Shop.—Double Shoals Cotton Mills will build machine shop; construction begun.

Okla., Tulsa.—Boilers, etc.—Tulsa Boiler & Sheet Iron Works, J. F. McKelvey, Mgr., Box 1926, will erect extension to main shop building; 100x100 ft.; mill construction; cost \$25,000; steel work let to Missouri Bridge & Iron Co., St. Louis, Mo.; J. L. Hughes, Constr. Engr., Tulsa; install machinery, cost \$15,000; steel-plate construction. (See Machinery Wanted—Punches; Shears; Flanging Machine.)

S. C., Greenville.—Electric Repair Shop, etc.—Huntington & Quarry and Gower-Mason Electric Co. purchased property, 140x250 ft., including 2-story brick building; improvements to include fire protection, heating plant and offices; install repair shop for motors and other electrical equipment.

Tex., Fort Worth.—Harrows.—Roderick Loan Mfg. Co., Mansfield, O., will establish distributing-house; manufactures harrows.

Va., Bristol.—Railroad Crossings.—American Railroad Crossings Corp., capital \$25,000, chartered; H. H. Collins, Prest.; L. D. Crump, Secy.; both of Johnson City, Tenn.

Tex., Hull.—Iron Works.—Hull Iron Works capital \$20,000, Incptd. by E. L. Pivate, Geo. Bryant and Ray Hanhamer.

Va., Norfolk.—Machine Shop.—Virginia Iron Works, Water and Madison Sts., let contract to Failor-Martin Corp., Contr. and Engr., to construct 75x70-ft. machine shop; steel construction; gravel roofing; concrete floor, wood covering; cost, without equipment, \$10,000.

Va., Richmond.—Marine Boilers.—Newport News Shipbuilding & Dry Dock Co., F. P. Palen, V.-P., Newport News, will proceed with construction of \$3,000,000 boiler works, previously described, work on which was suspended after signing of armistice; \$1,500,000 has been expended; plant when completed will manufacture Scotch type boilers for merchant marine steamships; John T. Wilson & Co. of Richmond have general contract. (War Dept. lately noted to have ordered cessation of building operations on this plant.)

### Gas and Oil Enterprises.

Ala., Piedmont.—Cowan Oil & Gas Co., capital \$10,000, Incptd. T. C. Cowan, Prest.; F. S. Formby, Secy.-Treas.; W. P. Cowan, V.-P.

Fla., Miami.—Prairie Oil Co., capital \$50,000, Incptd.; William M. Brown, Prest.; J. G. Truitt, V.-P.; Franklin C. Bush, Treas.; W. C. DeGarmo, Secy.

Ky., Bantytville.—W. P. Williams Oil Co. acquired 31 acres oil land in Big Sinking Dist.; reported to install machinery and drill for oil.

Ky., Frankfort.—Leitchfield Natural Gas Co., capital \$10,000, Incptd. by James S. Darnell, Marvin N. Darnell and Randolph Darnell.

La., Alexandria.—City contemplates erecting gas plant. Address The Mayor.

La., Baton Rouge.—Tennessee-Louisiana Oil & Gas Co., capital \$250,000, Incptd.; A. Lorenzo, Prest., Shreveport, La.; Frederic Wilbert, V.-P., Plaquemine, La.; Thos. C. Grace, Secy.-Treas., Baton Rouge.

La., Shreveport.—Oil Refinery.—Great Southern Producing & Refining Co., Indianapolis, Ind., is proceeding with establishment

of refinery; has arranged for all material and equipment for operations at Shreveport and near Jennings, La.

Mo., St. Louis.—Gasoline Filling Station.—F. S. Buenger, 8415 Church Rd., let contract to Charles Wilcox, 49 W. Union Ave., St. Louis, to erect gasoline station; 21x40 ft.; 1 story; cost \$3,500.

Okla., Billings.—Refinery.—Greater Oklahoma Oil Corp., G. B. Shirrett, Pres., will construct refinery, capacity 200 bbls.; needs material, tanks, pumps and stills. (See Machinery Wanted—Oil-refinery Equipment and Material.)

Okla., Cordell.—Blackwell Bulk Oil Co., capital \$85,000, inceptd. by Woon F. Munger, W. L. Parker and J. E. Kerr.

Okla., Lawton.—Lawton-Cement Oil Co., capital \$95,000, inceptd. by Guy C. Robertson and J. H. Mullin.

Okla., Muskogee.—Deeds Oil Co. organized; A. L. Wick, Pres.; O. R. Deeds, V.P.; Anton Hoffman, Secy.; B. E. Nussbaum, Treas.; E. T. Reese, Engr., Severs Hotel, Muskogee, Okla.; purchased property containing 180 acres of leases, on which are 5 wells; will drill additional wells; present capacity 100 bbls. daily. Lately noted inceptd. \$50,000 capital. (See Machinery Wanted—Pipe, Casing, etc.)

Okla., Oklahoma City.—Asteroid Oil & Gas Co., capital \$25,000, inceptd. by B. H. Markham, John McBride and others.

Okla., Pawhuska.—Big Elk Oil & Gas Co., R. L. Hall, Pres., lately noted inceptd., \$100,000 capital, will operate pumping station, 25 H. P. capacity; install gas engine, pumps and tubing; now has 3 producing oil wells and drilling 3 additional wells in Menifee County, Ky.; Albert Jackson, Engr. (See Machinery Wanted—Tubing, etc.; Engine; Pumps.)

Okla., Pawhuska.—Kash Drilling Co., capital \$12,000, inceptd. by R. L. Hall, L. M. Hall and Albert Jackson.

Okla., Randlett.—Le Barre Oil Co., capital \$50,000, inceptd. by B. F. Suter and E. H. Andrus of Randlett, and Fred. Schmann, Wichita, Kan.

Okla., Tulsa.—Hollis Hope Oil & Gas Co., capital \$35,000, inceptd. by E. B. Howard and Ethel Boardman, Tulsa, and S. B. Howard, Oklahoma City.

Tex., Burkburnett.—Dallas-Dixie Oil Co., capital \$60,000, inceptd.; Fred. Rogers, Pres.; J. Frank Wolfe, V.P.; Earl W. Jackson, Secy.; S. A. Henderson, Treas.

Tex., Childress.—Childress-Burk Oil Co., capital \$75,000, inceptd. by A. J. Fires, F. M. Dorsey and S. P. McMinn.

Tex., De Leon.—Refinery.—De Leon Refining Co. purchased site for erection of 3000-bbl. refinery; cost \$300,000; M. E. Smith, E. E. Costly of Tulsa, and W. H. Robins of Muskogee, Okla., are reported interested; pipe line proposed.

Tex., Dallas.—Wichita-Knox Oil Co., capital \$25,000, inceptd.; A. C. Adkins, Pres.; Fred. Z. Mills and L. M. Dumas, V.P.; C. G. Quillian, Secy.-Treas.

Tex., Dallas.—Wichita-Knox Oil Co., capital \$25,000, inceptd. by A. C. Adkins, C. G. Quillian and Fred. Z. Mills.

Tex., Dallas.—Burk-Chief Oil Co., capital \$75,000, inceptd. by Mr. Harrison, Towne, Young and others.

Tex., Denton.—Denton-Ranger Co., capital \$10,000, organized to deal in leases and develop mineral rights in Texas oil fields; has number holdings; contemplates later development. (Lately noted organized by J. S. Gambill (Pres.) and others.)

Tex., Fort Worth.—Oil-pipe Line, Refinery, etc.—Texas-Gulf Refining & Pipe Line Co.,

Jos. H. Parker, Gen. Mgr., will construct oil-pipe line through Burkburnett oil district; also construct oil refinery, crude oil tank farm with daily capacity of 20,000 bbls., and grease plant; retort system. (Lately noted under Tex., Wichita Falls, as planning to erect oil refinery costing several hundred thousand dollars.)

Tex., Galveston.—Oil Tanks.—Humble Oil Refining Co. contemplates building four 18,000-gal. oil tanks.

Tex., Midlothian.—Hog Creek Stock Syndicate, capital \$100,000, inceptd.; M. A. Dillard, Pres.; M. P. Warren, Secy.-Treas.

Tex., San Antonio.—Oil Tanks, etc.—Humble Oil & Refining Co. will construct 2 petroleum tanks, capacity 31,000 bbls.; also construct loading rack and crude oil stills.

Tex., Sherman.—Francis-Lee Oil Co., capital \$20,000, inceptd.; H. C. Willis, Pres.; Emmet Penn, Secy.; Roscoe Gillett, Treas.

Tex., Wichita Falls.—West Texas Oil Co., capital \$65,000, inceptd. by F. H. Butler, Ray Carter and C. H. Featherstone.

Tex., Wichita Falls.—Munger Ranch Oil Co. organized by W. W. Gardner, Wm. J. Goodwin, A. W. Young and others.

Tex., Wichita Falls.—Burkburnett-O'Neill Oil Co., capital \$100,000, inceptd. by John O'Neill, Robert F. Farmer, both of Houston, Tex., and Chester Haller of Wichita County, Tex.

### Ice and Cold-Storage Plants.

Ala., Mobile.—Morris & Company will remodel cold-storage warehouse; cost \$30,000.

Ark., Fort Smith.—Fort Smith Ice Cream & Cold Storage Co. will erect addition; 50x80 ft.; 2 stories; cost \$2500.

Ga., Lagrange.—Georgia Ice & Supply Co., W. E. Armistead, Atty., lately noted inceptd. capital \$100,000, will organize about Feb. 5. (See Machinery Wanted—Ice Machinery; Electrical Equipment, etc.)

Miss., Clarksdale.—Crawley Ice Co. will remodel and erect additions to plant; cost \$30,000 to \$40,000.

Miss., Marks.—Leach-Nobles Ice Co. inceptd.; capital \$15,000.

Okla., Tulsa.—Tulsa Ice Co. will erect storage building.

Va., Norfolk.—Seaboard Ice & Cold Storage Co. will have plans prepared by D. E. Washington, Kansas City, Mo., and Chas. C. Wilson, Associate Archt., Columbia, S. C., to prepare plans for cold-storage plant to cost \$1,500,000; plans to be ready June 1.

### Irrigation Systems.

Tex., Miles.—A. J. Davis plans to construct dam, forming reservoir to irrigate 67 acres.

### Land Developments.

Fla., Fort Lauderdale.—City, G. W. Hall, Clerk, will construct golf links; cost \$20,000. (Lately noted to vote bonds.)

Fla., West Palm Beach.—Harry C. Kelsey, Boston, Mass., purchased 30,000-acre tract on Okeechobee Rd., near West Palm Beach; will establish town (to be called Kelsey), and stock certain acreage with cattle and hogs; will let some drainage contracts; subdivide portion of land in 10-acre and 100-acre farms; operate cane mill.

N. C., Scotland Neck.—Felton Land Co., capital \$125,000, inceptd. by F. P. Shields, J. B. Edwards and I. J. Moore.

N. C., Winston-Salem.—Hanes Rubber Co. will establish mill village; develop 135 acres.

La., Laurel Hill.—Evergreen Farms Co. organized; R. E. Lee Jones, Pres.; Wm. R.

Hay, V.P.; develop 1006 acres in West Feliciana Parish; hog and stock ranch. Lately noted inceptd., \$50,000 capital; asks bids on building materials, gasoline tractor and electric equipment, also prices on hogs, cattle and poultry. (See Machinery Wanted—Tractor; Electric Plants; Building Materials.)

Va., Lexington.—Trustees of Washington and Lee University appropriated \$7500 for enlargement of Wilson Athletic Field and Tennis Courts.

### Lumber Manufacturing.

Ala., Birmingham.—Kirkpatrick Lumber & Timber Co., capital \$25,000, inceptd.; Paul E. Chalmers, Pres.; R. N. Hawkins, Secy.-Treas.; Rhodes Boykin, V.P. and Gen. Mgr.

Fla., Pensacola.—Duval Lumber Co., capital \$25,000, inceptd.; C. W. Larkin, Pres.; J. W. Larkin, V.P.; H. A. Owsley, Secy.-Treas.

Ky., Blackey.—Rock House Timber Co., Whitesburg, Ky., is reported to develop timber land near Blackey.

Ky., Blackey.—Caudill's Branch Coal & Lumber Co., Indian Bottom, Ky., will install sawmills on timber tract near Blackey.

Ky., Mayking.—Pine Creek Lumber & Coal Co. organized by T. L. Tackett, Enterprise, Ky., and E. R. Hay, Winchester, Ky.; purchased timber and coal land near Mayking; will install sawmills and develop coal mines; construct 2 mi. railroad.

Ky., Perry County.—Kentucky River Hardwood Lumber Co., Whitesburg, Ky., is reported to install sawmills and develop 2000 acres timber land.

Ky., Whitesburg.—W. L. Creech and Hayes Smith are reported to install sawmills on timber tract near Virginia border.

La., Alexandria.—Calcasieu Sawmill Co., capital \$90,000, inceptd.; J. E. Crawford, Pres.; H. H. Miller, Secy.-Treas., both of Lake Charles; B. F. Lewis, V.P., Glenmora, La.

Miss., Gulfport.—Plave Mill Co. (subsidiary of International Shipbuilding Co., Gulfport, purchased for development stumpage in Green and George counties, lately noted acquired by the International Co.; development plans not definite; Plave Mill Co. is erecting sawmill at Plave, 12 mi. from Richton, Miss., and will cut timber from newly-acquired property for shipment to yards of International Shipbuilding Co. in Pascagoula, Miss., and Orange, Tex.

Miss., Plave.—Plave Mill Co., care International Shipbuilding Co., Gulfport, Miss., is proceeding with erection of sawmill. Under Miss., Pascagoula, was noted in September, organized by Henry Piggio, Gulfport, as to build sawmill. (See Miss., Gulfport.)

N. C., Charlotte.—A. Collins Lumber Corp., capital \$100,000, inceptd. by A. Collins, W. C. Dixon and J. C. Collins.

Okla., Tulsa.—Hanna Lumber Co., capital \$25,000, inceptd. by H. E. Hanna, Lenore Hanna and A. S. Burrows.

Tenn., Johnson City.—Johnson City Lumber Co. organized by W. S. Smith and others.

Tex., Dallas.—Buell Lumber Co. increased capital from \$10,000 to \$100,000.

Va., Coeburn.—L. F. and W. R. Jackson will install sawmills; develop timber land near Coeburn.

Va., Bristol.—Liberty Lumber & Mfg. Co., capital \$15,000, inceptd.; T. H. Morris, Pres., Johnson City, Tenn.; George W. Toner, Secy., Erwin, Tenn.

### Metal-Working Plants.

Fla., Miami.—Miami Metal & Rubber Co., lately noted inceptd., capital \$10,000, deals in rubber and metals; no manufacturing.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

N. C., Salisbury—Metal Culverts.—Southern Metal Culvert Co., lately noted organized, W. Phifer Quinn, Prest., to operate metal culvert plant, is asking prices on punch and riveter. (See Machinery Wanted—Punch and Riveter.)

### Mining.

Ala., Gadsden—Iron Ore.—Jirama Ore Co. increased capital from \$20,000 to \$100,000.

Ark., Mena—Manganese.—Tomahawk Manganese Co., capital \$300,000, inceptd.; W. R. Rowe, Prest.; W. A. Dally, V.-P.; J. F. Little, Secy.-Treas.

Ky., Carrsville—Zinc and Spar.—Big Five Zinc & Spar Co., 129 S. 4th St., Paducah, Ky., organized; Albert Likens, Prest.; Wm. W. Milner, V.-P.; T. N. Hazell, Treas.; W. S. Kennedy, Mgr., Lola, Ky.; develop 600 acres; install holists, oil engines, pumps and washers; open bids Apr. 1. Lately noted inceptd., \$150,000 capital. (See Machinery Wanted—Mining Equipment.)

Ky., Marion—Fluor Spar and Lead.—Marion Fluor Spar & Lead Co. organized; C. W. Haynes, Prest.; L. B. Harrington, V.-P.; G. W. Boogher, Treas.; will develop 100 acres. (Lately noted inceptd., capital \$25,000.)

N. C., Waynesville—Mica.—Franklin Mica & Mining Co., capital \$100,000, inceptd. by R. F. Whitmer and others.

Tex., San Antonio.—Texas Trap Rock Co., lately noted increasing capital from \$80,000 to \$100,000, states: Nothing new in machinery contemplated. (Supersedes recent item.)

### Miscellaneous Construction.

Ala., Mobile—Harbor Facilities.—State Harbor Comsn. will engage engineer to make investigation of required harbor facilities; J. C. Rich and others appointed committee.

Ala., Tuscaloosa—Wharf.—City has option on 175 acres of land on which to construct wharf. Address The Mayor.

Md., Indian Head—Boat Basin and Bulkhead. Navy Dept., Washington, D. C., will construct boat basin and bulkhead; cost \$42,000.

Miss., Natchez—River Terminal.—City will construct river terminal; engineers have completed preliminary survey of site. Address The Mayor. (Previously noted as contemplating construction of terminal facilities, including docks and wharves.)

Mo., Jefferson—Levee.—Dumm & Irwin plan to construct 5 mi. levee; cost \$75,000; J. R. Nolen, Engr., Jefferson City.

Mo., Jefferson City—Bank Revetment, etc.—U. S. Engr. Office, Kansas City, contemplates constructing 6000 lin. ft. concrete bank revetment and willow mattress; 80,000 cu. yds. dry earth excavation by hydraulic grader. 6000 cu. yds. gravel, etc.; cost \$72,000; W. Young, Engr.

N. C., Wilmington—Ferry Landing.—City accepted plans by J. Newton Johnson, City Engr., for Market St. approach to ferry between city and west side of Cape Fear River; concrete construction.

S. C., Charleston—Quay Wall.—Navy Dept., Washington, D. C., contemplates constructing quay wall; cost \$300,000.

Tex., Bay City—Levee Repairs.—Drainage Dist. No. 1 of Matagorda County will repair Colorado River protection levee; 4000 cu. yds. earth removal; bids until Feb. 10; E. N. Gustafson, Engr., Bay City; A. J. Hart, Secy. Drainage Comms. (See Machinery Wanted—Levee Repair.)

Tex., Freeport—Jetties.—Chas. Clarke & Co. of Galveston, Tex., will proceed with contract for repairs to jetties at Freeport harbor, mouth of Brazos River; require 5500 tons of small riprap, 3500 tons of large riprap and

6300 tons of small crest blocks. Clarke & Co. previously noted as lowest bidders at \$104,700.)

Tex., Miles—Dam.—H. H. Hart and J. E. J. Lackey, San Antonio, Tex., will construct dam across Concho River.

Tex., Sabine Pass—Jetty.—Government will construct jetty work at Sabine Pass; U. S. Engr. Office, Dallas, Tex., receives bids until Feb. 25. (See Machinery Wanted—Jetty.)

Va., Norfolk—Dredging.—U. S. Engr. Office, Custom-house, Norfolk, invites bids until Feb. 21 for dredging in Inland Waterway from Norfolk to Beaufort Inlet, N. C. (See Machinery Wanted—Dredging.)

Va., Yorktown—Pier.—Navy Dept., Bureau Yards and Docks, Washington, opened bids to construct wooden pier and approaches, and Arthur McMullen Co., Singer Bldg., 149 Broadway, New York (Philadelphia office, 1309 Finance Bldg.), is lowest bidder, but contract is not yet let. (Supersedes recent item.)

### Miscellaneous Enterprises.

Ala., Anniston—Construction.—Calhoun Construction Co., capital \$25,000, inceptd.; F. M. Cleckler, Prest., Oxford, Ala.; D. E. Little, V.-P.; Gus Waters, Treas.; J. R. Cleckler, Mgr.; both of Anniston, Ala.

Ala., Birmingham—Publishing.—Alabama Republic Publishing Co. inceptd.; Thomas J. Kennamer, Prest.; H. H. Cathey, V.-P.; Frank S. Rea, Treas.-Mgr.

D. C., Washington—Industrial Building.—Victory Building Co., 409 11th St., is having plans prepared for industrial building; 5 stories; 28x96 ft.; cost \$50,000.

Fla., Jacksonville—Steamship Lines.—South Atlantic Maritime Corp. organized with Mathew Hale, Prest., Boston, Mass.; Jas. Sprunt, V.-P., Wilmington, N. C.; W. W. Williamson, Treas., Savannah, Ga.; D. H. Lippett, Secy., Wilmington, N. C.; B. R. Kessler, Asst. Secy., Jacksonville, Fla.; plans to operate steamship lines from Jacksonville, Savannah, Wilmington, Charleston and Brunswick, Ga., to South and Central American ports.

Fla., West Palm Beach—Cattle and Hogs.—Harry C. Kelsey, Boston, Mass., will stock with Holstein cattle and Berkshire hogs a certain portion of 30,000 acres lately purchased near West Palm Beach. (See Land Developments.)

Ga., Atlanta—Fire Department Equipment.—City votes March 5 on \$100,000 bonds for motorization of fire department. H. L. Collier, Ch. of Constr.

Ky., Lexington—Grain Elevator.—Lexington Roller Mills Co. will erect grain elevator; 6 stories; concrete; capacity 150,000 bu.; cost \$50,000 to \$60,000; has let construction contract.

La., Houma—Shell Crushing.—Louisiana Crushing Co., C. S. Elms, Gen. Mgr., will install shell-crushing plant; is erecting building.

La., New Orleans—Printing Plant.—Times-Picayune Publishing Co. will erect printing plant; 3 stories and basement; fireproof; 150x85 ft.; install additional equipment, including stereotyping apparatus to double present capacity and additional octuple printing press.

Mo., Chesterfield—Grain Elevator.—L. Busch Faust, Prop. Swastika Farm, Olive Street Road, contemplates erecting grain elevator.

N. C., High Point—Electrical Designers, etc. National Machine & Electric Co., capital \$125,000, inceptd. by Thos. G. Shelton, Herman E. Wood, Julius C. Smith and others.

S. C., Laurens—Livestock.—Laurens Livestock Co., capital \$15,000, inceptd.; D. A. Glenn, Prest.; D. H. Counts, Secy.-Treas.

S. C., Shelton—Farm Supplies.—Farmers' Supply Co., capital \$8000, inceptd.; J. A. F.

Coleman, Prest.; J. H. McLane, V.-P.; J. G. Wolling, Jr., Secy.-Treas.

Tex., Waco—Lithographing.—Hill Printing & Stationery Co., 809 Austin St., J. S. Hill, Mgr., will install automatic press and equipment in present building; cost about \$12,000; contract placed. (Lately noted to establish lithographing plant.)

Va., Hampton—Laundry.—Star Laundry inceptd. by J. M. Atkinson, M. O. Lackey, C. H. Worthen; install machinery; cost about \$15,000.

Va., Norfolk—Engineering and Contracting.—Sanitary Engineer & Contracting Co., capital \$25,000, inceptd.; C. R. Hanson, Prest.; Gotfred Johansen, Secy.-Treas.; both of Norfolk; C. J. Sollier, V.-P., Edgewater, Va.

Va., Roanoke—Cleaning and Dyeing.—Roanoke Cleaning & Dye Works, capital \$25,000, inceptd.; W. S. Engleby, Prest.; R. L. Davis, Secy.

Va., Danville—Laundry.—Virginia Laundry Co. increased capital from \$25,000 to \$75,000.

Va., Norfolk—Motor Transportation.—Omeda Motor Boat & Auto Truck Service Corp., capital \$10,000, inceptd.; C. M. Surles, Prest.; R. C. Rawles, Secy.

### Miscellaneous Factories.

Ala., Anniston—Ice Cream.—Alabama Ice Cream Co. reorganized; equip building.

Ala., Birmingham—Pipe.—Superior Pipe Co., capital \$100,000, inceptd.; C. A. Hamilton, Prest.-Treas.; Mrs. M. D. Hamilton, Secy.

Ark., Pine Bluff—Syrup.—Fort Scott Sorghum Syrup Co., Fort Scott, Kans., Bertram Orde, Prest.-Mgr., let contract for fireproof mill and building; cement and brick construction; will install roller mills, crushing capacity 600 tons daily; 10,000 gals. sorghum syrup, daily output; lately noted to build. (See Machinery Wanted—Boilers, Engines, etc.)

Ark., Fort Smith—Ice Cream.—Fort Smith Ice Cream & Cold Storage Co. will erect addition; 50x30 ft.; 2 stories; cost \$2500.

Florida—Fruit Juice.—Florida Fruit Juice Co., capital \$25,000, inceptd. by B. Wertheim, A. C. and A. Reibstein, all of 213 E. 11th St., New York.

Ga., Augusta—Ice Cream.—American Ice Cream Co. organized; Harry K. Creamer, Prest.; Geo. P. Curry, Secy.-Treas.; H. G. Warren, Mgr.; purchased and will operate ice-cream plant.

Ga., Baconton—Pecan Products.—Georgia Pecan Products Co. organized; R. J. Bacon, V.-P.; Harry U. Jackson, Secy.; has purchased nut-cracking machines, cost \$5000. (Under Ga., Camilla, lately noted inceptd., \$40,000 capital.)

Ga., Savannah—Candy.—John E. Helfrich & Son, 414 William St., will establish lately-noted candy factory; has fireproof building; install machinery, cost \$5000; daily output 10,000 lbs. Lately noted. (See Machinery Wanted—Candy Machinery.)

Mo., St. Louis—Refrigerators, etc.—Russian Refrigerator & Butcher Supply Co., 911 N. Broadway, is having plans prepared by H. J. Schulte, 1517 N. 23d St., for factory and office building; 1 story; concrete walls; steel sash; cost \$50,000; will manufacture patented freezer counters, grocers' refrigerators, etc. (Lately noted.)

Mo., Valley Park—Glass.—Universal Glass Co., care of R. K. Kauffman, Mercantile Trust Bldg., St. Louis, purchased glass plant; will remodel and operate; repair about 200 employees' dwellings, bank building and hotel.

N. C., Charlotte—Overalls.—Southern Mfg. Co., Chester, N. C., will erect factory; install 50 machines.

N. C., Concord—Electric Appliances.—Elec-

tric Appliance Co., capital \$5000, inctpd. by L. A. Fisher of Concord, Henry T. Long and James P. McMullen, both of Charlotte, N. C.

N. C., Greensboro—Cigars.—King Cartland Cigar Co., capital \$50,000, inctpd. by W. W. King, H. H. Cartland and W. F. Ross.

N. C., Greensboro—Cigars.—I. L. Feree and others will build cigar factory; daily capacity 5000 to 10,000 cigars.

N. C., Mebane—Brooms.—J. L. Fowler contemplates installing broom machinery. (See Machinery Wanted—Broom Machinery.)

N. C., Wilson—Tobacco.—Daily-Watson Tobacco Co., 119 S. Goldsboro St., organized; E. Asbury Davis, Pres.; J. W. Dalley, Treas.; Fred Watson, Secy.; has building; is branch of F. A. Davis & Sons, Baltimore Md., wholesale and manufacturers of cigars and tobacco. (Lately noted inctpd., capital \$100,000.)

N. C., Wilmington—Chemicals.—Magnolia Chemical Co., capital \$100,000, inctpd. by Frank Griffith, L. M. Carr and J. W. Tankersley.

Okla., Ada—Ice-cream.—Ada Ice & Cold Storage Co. is reported to erect ice-cream plant.

Okla., Prague—Mattresses.—J. M. Barnett of Okemah, Okla., is considering establishment of mattress factory.

Okla., Tulsa—Salt and Pepper Shaker.—Harris Mfg. Co. organized with C. O. Robinson, Pres.; S. S. Robinson, Treas.; Morris Pyle, Secy.; will manufacture combination salt and pepper shakers.

S. C., Anderson—Creamery.—Anderson Creamery Co., capital \$5000, inctpd. by A. B. Bowden of Anderson and T. J. Maret of Clemson, S. C.

S. C., Anderson—Ice Cream.—Anderson Cold Storage Co., Dick Dobbins, Mgr., will build ice-cream plant; daily capacity 500 gals.

S. C., Ridgeville—Dairy Products.—Wistaria Farms, capital \$85,000, inctpd. by F. A. Auchmoody of Ridgeville, and W. L. Rodrigues of Charleston, S. C.

Tenn., Chattanooga—Hide and Leather.—Goodman Hide & Leather Co. increased capital from \$20,000 to \$50,000.

Tex., Fort Worth—Explosives.—Pringle Powder Co., Bradford, Pa., will establish plant for distribution of nitroglycerine; also manufacture.

Tex., Houston—Trunks.—Houston Trunk Factory increased capital from \$10,000 to \$20,000.

Va., Richmond—Fleming & Cardozo, lately noted inctpd., capital \$10,000, are manufacturers agents, railway supplies.

W. Va., Glasgow—Glass.—Travis Glass Co. let contract to H. L. Dixon Co., Rosslyn Rd., Glasgow, to enlarge glass plant; 1 story; 100x200 ft.

W. Va., Parkersburg—Creamery.—American Creamery Co., capital \$50,000, inctpd. by Geo. W. Strong, A. G. Cline and C. T. Hiteshaw.

W. Va., Welch—Ice Cream.—Husband Ice Cream Co., Bluefield, W. Va., is reported to erect ice-cream factory.

### Motor Cars, Garages, Tires, Etc.

Ala., Birmingham—Automobiles.—Burns Brothers, 407 S. 21st St., let contract to C. M. Allen & Sons, Contr. and Engr., to construct 90x100-ft. fireproof building; for automobile showroom and service station; C. M. Allen, Archt. (Lately noted.)

Ark., Little Rock—Automobiles.—Climber Motor Corp., H. F. Buhler, Mgr., 217 Boyle Bldg., let contract to T. F. Campbell, 2300 Center St., Little Rock, at \$25,000 for first building; 100x300 ft.; fireproof to roof; install equipment for manufacturing parts and assembling cars; Geo. Schoneck, Engr., 217 Boyle Bldg.; 5 automobiles daily output. Previously

noted to establish plant. (See Machinery Wanted—Automobile-assembling Equipment, etc.)

D. C., Washington—Garage.—A. B. Mullett & Co., Union Trust Bldg., prepared plans for garage; 5 stories; 60x125 ft.; cost \$100,000.

Fla., Tampa—Automobiles.—Fernam Motor Car Co. increased capital from \$50,000 to \$100,000.

Ga., Macon—Motor Accessories.—McCord & Satterfield Tractor Co., capital \$12,000, inctpd. by R. A. McCord, J. E. Satterfield and S. Z. Downs.

Ky., Lexington—Automobiles.—John A. Young Motor Co., capital \$50,000, inctpd. by John A. Young and others.

Ky., Louisville—Garage.—Electric Garage Co. increased capital from \$25,000 to \$50,000.

Ky., Louisville—Automobiles.—O. K. Motors Co., capital \$25,000, inctpd. by Frank S. Ouerbacker, Frank T. Sullivan and J. W. Button.

La., Alexandria—Automobiles.—Auto-Electric Co., capital \$5000, inctpd.; A. Rothery Turregano, Pres.; John H. Overton, V.-P.; Jules P. Turregano, Secy.-Treas.

La., Baton Rouge—Automobile Accessories, etc.—Auto Service Co., capital \$5000, inctpd.; Mrs. Mabel H. Knox, Pres.; Alvin E. Rabenhorst, V.-P.; Leslie B. Lane, Secy.-Treas.

Md., Baltimore—Garage.—Jos. E. Curron, 501 N. Pulaski St., let contract to Francis E. Tormey, 813 Newington Ave., Baltimore, to remodel garage; 1 story; 160x175 ft.

Md., Baltimore—Garage.—William Sireal & Son, Calvert and Federal Sts., will erect garage at Federal and Hargrove Sts.; 2 stories; 32x50 ft.; J. Franklin Nelker, Archt., Professional Bldg.; P. J. Cushen, Contr., 220 St. Paul St.; both of Baltimore.

Md., Easton—Automobile Showroom.—Harry E. Clark, Prest. Motor Sales Co., purchased site 150x350 ft. and is reported to erect automobile showroom.

Md., Frederick—Garage.—Kepner & Smith, 34 N. Market St., prepared plans for garage; 1 story; cost \$5000.

Md., Mt. Airy—Garage.—E. E. Butler will erect garage; 1 story; 39x100 ft.; Hahn & Betson, Contrs., 30 Wimmer St.; Kepner & Smith, Archts., 34 Market St.; both of Frederick, Md.

Mo., St. Louis—Motor Cars.—Hudson-Frampton Motor Car Co., capital \$150,000, inctpd. by A. S. Frampton, Harry Goedecke and Oliver F. Erbs.

Mo., Kansas City—Garage.—City is reported to erect building for motor cars and other equipment for Water Dept. Robt. W. Waddell, City Engr.

N. C., Charlotte—Garage.—N. J. Sherrill will erect garage; brick, steel and concrete; 1 story; 45x175 ft.

N. C., Elizabeth City—Automobiles.—Hanson Motor Co. increased capital from \$500,000 to \$1,000,000; will erect additional buildings, adding one acre of floor space to plant; plans daily capacity of 10 cars.

N. C., Greensboro—Automobiles.—Battery Service Co., 214 S. Dore St., organized; H. L. Frazier, Pres.; B. O. Culler, V.-P.; J. W. McIntosh, Secy.-Mgr.; has rented building; purchased machinery; sell, repair and re-charge storage batteries. (Lately noted inctpd. capital \$20,000.)

N. C., Winston-Salem—Tires.—Hanes Rubber Co. contemplates doubling capacity of automobile tire factory; will develop 135 acres and erect bungalows for mill village.

N. C., Yadkinville—Automobiles.—Kelly-Booker Motor Co., capital \$50,000, inctpd. by L. D. Kelly and others.

Okla., Muskogee—Automobiles.—Wood Hurt

Motor Co., capital \$10,000, inctpd. by J. H. Mitchell and D. E. Castles.

Okla., Muskogee—Tires.—American Tire & Rubber Co., capital \$100,000, inctpd. by C. E. F. Harris, Poteau, Okla.; William A. McMullen, Fort Smith, Ark., and Earl V. Harris of Oklahoma City.

Okla., Oklahoma City—Automobile Supplies. Sharp Auto Supply Co., capital \$50,000, inctpd. by R. L. Sharp, J. C. Cornish and L. W. Simmons.

Okla., Yale—Tire Protectors.—Yale Tire & Rubber Co., Inc., 4th and Main Sts., H. S. Blynt, Mgr., let contract L. L. Hitt, Yale, to construct 40x160-ft. fireproof building; brick and stone construction; install rubber-working machinery, etc.; manufacture automobile tires, tire protectors, tubes, sundries. (See Machinery Wanted—Rubber-working Machinery.)

S. C., Columbia—Motor Cars.—Speedway Motor Supply Co., capital \$5000, inctpd. by Paul A. Cooper and Daniel B. Cooper.

S. C., Columbia—Automobiles.—Burns Motor Co., capital \$25,000, inctpd. by Geo. W. Burns and Ashley C. Tobias, Jr.

Tenn., Memphis—Automobiles.—Owl Auto Co., capital \$5000, inctpd. by W. H. Garrett, J. L. Garrett and P. P. Conger.

Tex., Houston—Automobiles.—Consolidated Motors Co., 614 Beatty Bldg., organized; W. C. Turnbow, Pres.; J. M. Ball, V.-P.; W. C. Dorbandt, Secy.; B. H. Dwight, Mgr.; has building; purchased all machinery. (Lately noted inctpd., capital \$250,000.)

Tex., Houston—Motor Cars.—Lipper Motor Car Co., 900 Main St., increased capital from \$10,000 to \$35,000.

Tex., Houston—Trailers, Trucks, etc.—American Trailer & Body Co. organized with J. H. Fleming, Pres.; I. C. Timmins, V.-P.; J. Campbell Bailey, Secy.-Treas.; will build plant to manufacture motor trucks, bodies and trailers; purchased individual motor-driven machinery. (Lately noted organized.)

Tex., San Antonio—Trucks.—Lone Star Motor Truck & Tractor Co. will erect factory; cost \$30,000.

Va., Danville—Motor Accessories.—Owens-Merritt Co. increased capital from \$50,000 to \$125,000.

Va., Martinsville—Truck Bodies.—American Truck Body Co., R. A. Fontaine, Secy.-Mgr., will install machinery for making metal truck bodies; has building. Lately noted inctpd., capital \$100,000. (See Machinery Wanted—Metal-working Machinery.)

W. Va., Buckhannon—Automobiles.—Kelley-Darnall Motor Co., capital \$10,000, inctpd. by E. H. Kelley, T. A. Darnall, H. A. Darnall and others.

W. Va., Bluefield—Garage.—Acme Motor Co., capital \$50,000, inctpd. by Geo. S. Strader, C. M. Rudder, Jr., and O. J. Garrett.

W. Va., Huntington—Garage.—John B. Stevenson, 1661 5th Ave., will erect garage; 2 stories; 60x160 ft.; Meaner & Handloser, Archts., 917 R. & P. Bldg., Huntington.

W. Va., Morgantown—Automobile Accessories.—Armored Rubber Co., capital \$250,000, inctpd. by J. H. McDermott, E. D. Tumlin, F. M. Cain and others.

W. Va., Wheeling—Garage.—Dr. Chas. H. Keeser, 2302 Chapline St., let contract to Geo. H. Dieringer, Oak Park, Wheeling, to erect garage and storage building; 1½ stories; 25x66 ft.; cost \$12,000; H. A. Hawkins, Contr., Wheeling.

### Road and Street Work.

Ala., Guntersville—Marshall County Comms., Gordon Gilbreath, Judge, has \$30,000 available for grading and hard-surfacing 8 mi. road;

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

date of opening bids not set; Mr. Keenan, Engr., Guntersville. (Lately noted.)

Ala., Selma.—Dallas County Board of Revenue will resurface 51 mi. of Benton Road, between Selma and Safford; W. M. Vaughan, County Judge.

Ala., Tusculumbia.—City, O. B. Clark, Mayor, will construct 2 to 2½ mi. street, 50 ft. wide, with concrete or asphalt; four rows curbing, 2 mi. long, and 2 mi. sidewalks; date of opening bids not set, probably late in March; H. F. Ferree Co. (of Memphis), Tusculumbia, Engr. (Lately noted.)

Ark., Danville.—Yell County will construct 57 mi. of asphalt macadam road and 3 mi. of graded road; include vitrified clay or iron pipe and concrete culverts, 430 ft. steel bridges, etc.; bids received until Feb. 3; I. R. Packard, Engr., Plainview, Ark. (See Machinery Wanted—Road Construction.)

Ark., Devall Bluff.—Prairie County Road Improvement Dist. No. 4 let contract R. Mobley of North Little Rock, Ark., at \$76,000 to construct road from Des Arc toward Cotton Plant; E. E. Mashburn, Engr., Cotton Plant, Ark. (Lately noted inviting bids.)

Ark., Hot Springs.—Garland County Comms. are reported to pave 5 mi. with cement and 6 mi. with macadam, Arkadelphia Highway, costing \$150,000; also construct 60 mi. asphalt paving on Little Rock and Hot Springs Highway; F. A. Stearns, Commr.

Fla., Fort Lauderdale.—City, G. W. Hall, Clerk, will construct 39,000 sq. yds. street paving, macadam foundation, sand-asphalt surface, concrete sidewalks; involves \$50,000; date of opening bids not set; H. C. Davis, City Engr. (Lately noted contemplating vote on \$10,000 bonds.)

Fla., Fort Myers.—Lee County Comms., R. G. Collier, Chrmn., will grade remainder of Tamiami Trail through county; bids until Feb. 12. (See Machinery Wanted—Road Construction.)

Fla., Fort Pierce.—St. Lucie County Comms. plan to expend \$70,000 to construct Dixie Highway, north of St. Lucie.

Fla., Jacksonville.—Duval County Comms., Ellis, Curtis & Kooker, Engrs., will construct 1 mi. John Anderson Highway; brick, on sand base; open bids Feb. 10. Lately noted. (See Machinery Wanted—Road Construction.)

Fla., Lakeland.—City, E. C. Flannagan, Mayor, let contract to Wm. P. McDonald Construction Co., Lakeland, to construct 4 mi. asphalt paving; \$80,000 available; J. W. Turner, City Engr.

Fla., Miami Beach.—City plans to issue \$50,000 bonds to repair and pave cross streets. Address The Mayor.

Fla., Milton.—Santa Rosa County Comms., J. F. Poore, Chrmn., will issue \$80,000 bonds to construct surface road from west side of Okaloosa line to east end of Black Water River at Milton; Spanish Trail.

Fla., Pensacola.—City, G. H. Hinrichs, Commr. Streets, will construct paving, extend sewers and improve water-works; \$80,000 available; date of opening bids not determined; Frank Jarrett, Engr. (Lately noted bond issue.)

Fla., Pensacola.—Navy Dept., Washington, D. C., has plans for road construction; cost \$10,400.

La., Amite.—Tangipahoa Parish, Third Ward, is completing plans for road construction. Address Police Jury.

La., Gretna.—Jefferson Parish Police Jury contemplates voting special tax for \$150,000 to complete construction and maintain Road Dists. No. 1 and No. 2. (Lately noted to construct section of Jefferson Highway.)

La., New Iberia.—City, L. F. Villerman,

Secy. Board Trustees, asks bids until March 10 to construct 35,000 sq. yds. brick, wood block, sheet asphalt, concrete or bitulithic pavement; J. B. McCrary Co., Engr., Atlanta, Ga., and St. Martinville, La. (See Machinery Wanted—Paving.)

La., New Iberia.—Iberia Parish, Road Dist. No. 6, will issue \$35,000 bonds for road construction; bonds previously authorized at election; A. A. Theriot, Prest. Police Jury.

La., New Iberia.—Iberia Parish, Road Dist. No. 4, will issue \$60,000 bonds for road construction; bonds previously authorized at election; A. A. Theriot, Prest. Police Jury.

La., New Iberia.—City Comms. invite bids until March 4 to pave Main St.; considering vitrified brick, wooden block or bitulithic.

La., New Iberia.—Iberia Parish Police Jury ordered elections for Feb. 27 for road construction as follows: Second Ward, \$50,000 bonds; Third Ward, \$30,000; Fifth Ward, \$47,000.

Miss., Grenada.—Grenada County Suprs. will construct roads in Dist. No. 4; receives bids in February; M. E. Powell, Clerk.

Miss., Pascagoula.—City Comsn. invites new bids until March 11 for street improvements and sewer construction; former will consist of 650 cu. yds. excavation, 26,750 sq. yds. pavement, curb, gutter and storm drain inlets; Xavier A. Kramer, Engr., Magnolia, Miss.; F. H. Lewis, Mayor. Lately noted to have rejected bids. See Sewer Construction (See Machinery Wanted—Paving.)

Miss., Monticello.—Lawrence County Commissioners will construct road through Beat 2; issued \$24,000 bonds.

Mo., Benton.—Scott County Court has \$600,000 available to construct gravel roads; M. A. Murray, Engr., Sikeston, Mo.; has let small contract, will let larger contract about May 1. (Road Construction lately noted.)

Mo., Independence.—Jackson County Commissioners are having surveys made by O. C. Sheley, County Highway Engr., of proposed road connecting old Kansas City Independence Rd. with Van Horn Rd.

Mo., Kansas City.—City will pave streets, including 13th St., from Main St. to Baltimore Ave., and 7th St., from Walnut St. to Grand Ave.; Board of Public Works invites bids until Feb. 14; Robt. W. Waldeil, City Engr.

Mo., Liberty.—Clay County Comms. have \$225,000 available for road construction, grading, bridging, probably bituminous macadam; date of opening bids not set; Earl Denny, Engr., Liberty. (Lately noted.)

Mo., St. Louis.—Board of Public Service authorized resumption of street improvements, suspended because of war conditions; invites bids until March 4 for paving sections of 21 streets with brick, wood block, asphalt, bitulithic and bituminous macadam; estimated to cost \$500,000.

Mo., St. Joseph.—City has preliminary plans for street paving, to include: Frederick Ave., 18 blocks, brick on concrete base, cost \$327; Marion St., 50 sq. yds., asphaltic concrete, \$40 lin. ft. concrete curb and gutter, 500 sq. ft. concrete drive, 400 sq. yds. brick paving, etc.; also pave 6 alleys, 4333 sq. yds. concrete paving, cost \$10,000; H. D. Judson, Engr., St. Joseph.

Mo., Versailles.—Morgan County Comms. contemplate constructing 10 mi. road; cost \$10,000.

N. C., Asheville.—J. G. Stikeleather, City Commr., plans to repave Biltmore Ave.

N. C., Danbury.—Stokes County, Peters Creek Township voted \$35,000 bonds to improve roads. Address County Comms. (Lately noted to vote.)

N. C., Charlotte.—City let contract Noll

Construction Co., Chhattanooga, Tenn., to pave sections of South College, Second, Third and Eleventh Sts.; A. H. Weara, Commr.

N. C., Winston-Salem.—City let contract C. M. Thomas & Co. of Winston-Salem at \$14,744.40 to pave Burke St. from W. 4th to intersection of Shallowford and W. 4th Sts., distance 1700 ft.; 5184 sq. yds. paving.

N. C., Winston-Salem.—City, Joseph Fifth, Engr., will construct bitulithic and asphaltic concrete street paving; cost from \$200,000 to \$300,000; date of opening bids not set.

N. C., Winston-Salem.—City will pave Carolina Ave. from Summit St. to Brookstown Ave. with bituminous concrete. Address The Mayor.

N. C., Wilmington.—City will pave Water and Nutt Sts. from Red Cross to Dock Sts. with brick; \$500 sq. yds.; bids opened Feb. 3 for laying 4 or 5-in. base and grading; J. N. Johnson, City Engr.

Okl., Antlers.—City Comms. will construct 2 mi. of cement sidewalks.

Okl., El Reno.—Canadian County Comms. let contract T. C. Ottinger of Anadarko, Okla., to surface 4 mi. of Meridian Highway leading north from El Reno.

Okl., Tulsa.—Tulsa County will grade and improve roads; bids until Feb. 17; Lewis Cline, County Clerk. (See Machinery Wanted—Road Construction.)

Tenn., Jonesboro.—Washington County Good Roads Comsn., E. J. Baxter, Secy., has \$750,000 available to construct 200 mi. graded and macadamized roads and concrete bridges; Frank W. Webster, Engr., Johnson City, Tenn.; bids were lately noted for Feb. 17 on first contract of this work, 21.35 mi., Road No. 2; water-bound macadam; reinforced and plain concrete drainage structures; cost \$250,000; also State and Federal Government will pay one-half cost of road through Washington County, road to cost approximately \$200,000.

Tex., Austin.—State Highway Comsn. will extend State Highway No. 29 from Austin to Fredericksburg via Johnson City; 80 mi.; macadam.

Tex., Albany.—Shackelford County, Proctor K. Clarke, Engr., will build 11.2 mi. road, cost \$82,000; construct 2 bridges, cost \$2500; plans completed.

Tex., Dallas.—City Comms. will pave sections of Jeffries and Wall Sts., Forest, Pennsylvania and Peabody Aves. with bitulithic.

Tex., Centerville.—Leon County, C. D. Craig, Judge, will construct East Branch Exall Highway; \$146,000 involved (has \$70,000, will vote on \$10,000 bonds and receive some Federal aid); Bryant & Huffman, Austin, Tex., Engr.

Tex., Cisco.—City, H. J. Bradshaw, Engr., let contract to Municipal Paving Co., Dallas, Tex., at \$54,000 to construct 40,000 sq. yds. street. (Lately noted inviting bids.)

Tex., Fort Worth.—City will pave Calhoun St.; cost \$30,000 to \$40,000. Address The Mayor.

Tex., Galveston.—Galveston County, R. M. Sias, Engr., let contract to W. A. Kelso, Galveston, at \$18,919.50 to resurface Dickinson League City Rd., 8600 cu. yds., with mud shell 6 in. thick. (Bids lately noted.)

Tex., McKinney.—Collin County Comms., R. L. Moulden, County Judge, will vote Feb. 22 on nearly \$2,000,000 bonds for road construction as follows: Farmersville Dist. No. 8, \$400,000; Wylie Dist. No. 15, \$200,000; Clearlake and Culleoka Dist. No. 16, \$85,000; Blue Ridge Dist. No. 17, \$125,000; Pike Dist. No. 18, \$65,000; North Royce Dist. No. 19, \$50,000; Josephine Dist. No. 20, \$75,000; Nevada Dist. No. 21, \$200,000; Copeville Dist. No. 22, \$50,000; Lanyon Dist. No. 23, \$60,000; Valdosta Dist. No. 24, \$60,000; Westminster Dist. No. 25, \$100,000; Weston

Dist. No. 26, \$250,000; Dist. No. 12 (Anna and Melissa Dist.) has voted \$69,000, and Allen Dist. No. 13 has voted \$50,000. (Lately partially noted.)

Tex., McAllen.—City, O. P. Archer, Mayor, let contract to Finley Method Co., Houston, Tex., at \$75,000 to construct streets of gravel base, trap rock and tarria; E. M. Carl, Engr., McAllen. (Lately noted.)

Tex., San Antonio.—City let contract Uvalde Rock Asphalt Co., Beaumont, Tex., to repair E. Commerce St. from Alamo to Chestnut St.; Sam C. Bell, Mayor. (Lately noted inviting bids.)

Tex., Vernon.—City, J. H. Hall, Secy., will issue \$30,000 bonds for street improvements.

Tex., Weatherford.—Parker County Comms. ordered election for March 1 to vote on \$400,000 bonds to construct roads.

Tex., Weatherford.—City votes April 1 on \$60,000 bonds to pave streets. Address The Mayor.

Va., Norfolk.—City will pave W. Liberty St.; Walter H. Taylor, Jr., City Engr.

Va., Richmond.—City contemplates improving streets connecting Ginter Park with business section; Charles E. Bolling, City Engr.

W. Va., Bluefield.—City will pave with concrete Price St. between Bluefield Ave. and Rogers St. Address The Mayor.

W. Va., Fairmont.—Marion County, A. G. Martin, Clerk County Court, will construct 6 mi. roads and streets, Grant Dist.; bids until March 6. (See Machinery Wanted—Road and Street Construction.)

W. Va., Hamlin.—Lincoln County Comms. have \$500,000 available to construct 104 mi. road; grading and hard surfacing; also bridges; open bids Feb. 20; T. J. Bartrug, Engr. Supersedes recent item, incorrectly noted. (See Machinery Wanted—Road Construction.)

W. Va., Pineville.—Wyoming County Comms. plan to grade  $4\frac{1}{2}$  mi. of road; 18 ft. wide; 40,000 cu. yds. grading; will also construct 3 arch bridges; cost \$70,000; work under supervision of A. B. Shannon, County Road Engr.

W. Va., Ripley.—Jackson County Comms. will construct 2-mi. concrete road, \$50,000 available; will open bids March 4; J. S. Chase, Engr. (See Machinery Wanted—Road Construction.)

### Sewer Construction.

Ala., Florence.—City, R. E. Meade, City Engr., asks bids until Feb. 11 to construct  $8\frac{1}{2}$  mi. sanitary sewers; 15, 12 and 8-in. vitrified pipe. (See Machinery Wanted—Sewer Construction.)

Ark., Hot Springs.—City will construct sewers in Sewer Improvement Dist. No. 40; 6-in. mains, cost \$4200; also in Improvement Dist. No. 43; 6 and 8-in. mains, cost \$9000; F. A. Stearns, Commr.

D. C., Washington.—District Comms., 511 District Bldg., rejected bids on sewer construction; work will be done by District; day labor; cost \$40,000. (Bids lately noted.)

Fla., Pensacola.—City, G. H. Hinrichs, Commr. Streets, will extend sewers, construct paving and improve water-works; \$80,000 available; date of opening bids not determined; Frank Jarrett, Engr. (Lately noted.)

Fla., Pensacola.—Navy Dept., Washington, D. C., has plans for sewer and water system.

Miss., Pascagoula.—City Comn. invites new bids until March 11 to construct sanitary sewers, storm drainage and street improvements; sanitary system will consist of vitrified sewer pipe and branches, line structures and disposal work; storm sewers of vitrified

pipe, manholes and catch basins; Xavier A. Kramer, Engr., Magnolia, Miss.; F. H. Lewis, Mayor; lately noted to have rejected bids. See Road and Street Work. (See Machinery Wanted—Sewer Construction, etc.)

Tex., Dallas.—City and Dallas County contemplates constructing sanitary sewer in Lancaster Ave. from Cedar Creek outlet to County Detention Home; 5300 ft. 8-in. vitrified pipe; 335 cu. yds. concrete; 1490 cu. yds. rock trenching; J. F. Witt, Engr., Dallas.

Tex., Dallas.—City contemplates constructing following sewers at total estimated cost of \$90,897: 1300 ft. monolithic concrete and tile pipe storm sewer in Grand Ave., cost \$7766; 800 ft. 30-in. reinforced concrete sewer in Oakland Ave., cost \$5040; 12,000 ft. 30 to 60-in. monolithic concrete pipe and 15 to 24-in. tile sewer in Douglas Street Dist., cost \$70,150; 1500 ft. 15 to 24-in. tile pipe sewer in Fair Park, cost \$8941; G. D. Fairtrace, City Engr.

Va., Petersburg.—City is considering additional bond issue of \$200,000 to complete sewer and water systems. Address The Mayor.

### Shipbuilding Plants.

Va., Weems.—Humphreys Marine Railways & Lumber Corp. increased capital from \$25,000 to \$75,000.

### Telephone Systems.

N. C., Statesville.—Iredell Telephone Co. acquires Bell Telephone & Telegraph Co.'s property in Iredell and Alexander counties; contemplates improvements; will issue \$35,000 bonds.

Va., Norfolk.—Navy Dept., Washington, D. C., let contract R. R. Richardson, Bank of Commerce Bldg., Norfolk, at \$48,360 to erect 2 radio buildings.

### Textile Mills.

Ga., Lawrenceville.—Cotton Goods.—Southern Trading Corp., Winder, Ga., purchased Lawrenceville Cotton Mills and is reported to double capacity of plant.

N. C., Blue Ridge.—Cotton Goods.—Blue Ridge Cotton Mills, capital \$25,000, inceptd. by B. M. Spratt, W. L. Heffner and G. C. Mauney, all of Malden, N. C.

N. C., Gastonia.—Hosiery and Underwear.—Glenn-McLean Knitting Mills, capital \$50,000, inceptd. by Geo. B. Glenn, R. C. McLean and others.

N. C., Waynesville.—Woolen Yarn.—Waynesville Ice & Cold Storage Co., L. M. Killian, Mgr., contemplates establishment of woolen-yarn factory. (See Machinery Wanted—Yarn-mill (Woolen) Machinery.)

Va., Radford.—Hosiery.—Paul Knitting Mills, Pulaski, Va., M. L. Victorins, Pres., will establish lately-noted branch plant in building already erected; brick, 30x35-ft. structure; install 50 knitting machines, 10 loopers; electric drive, 6 H. P.; daily capacity 300 doz. pairs half hose.

### Water-Works.

Fla., Fort Lauderdale.—City, G. W. Hall, Clerk, will construct water-works; daily capacity 200,000 gals.; extend water mains  $\frac{3}{4}$  mi.; construct reinforced concrete reservoir, capacity 70,000 gals.; install softening and filtration plant; cost of improvements \$30,000; date of opening bids not set; H. C. Davis, City Engr.; bonds not yet voted. (Lately noted.)

Fla., Key West.—Navy Dept., J. C. Terrill, Asst. Civil Engr., U. S. N., Naval Air Station, let lately-noted contract to South Florida Contracting & Engineering Co. at \$80,000 to construct 40-ft. reinforced concrete tower; seven 50,000-gal. tanks; use 6000 ft. wood pipe.

Fla., Pensacola.—City, G. H. Hinrichs,

Commr. Streets, will improve water-works, extend sewers and construct paving; \$80,000 available; date of opening bids not determined; Frank Jarrett, Engr. (Lately noted.)

Fla., Pensacola.—Navy Dept., Washington, D. C., has plans for water and sewer system.

Ga., Atlanta.—City votes Mar. 5 on \$500,000 bonds for water-works equipment; H. L. Collier, Ch. of Constr.

Ky., Ashland.—City will purchase and improve water-works; plans to build filtration plant and pumping station and install 1300 to 1400 meters, electric dynamos or gasoline engines; Thomas Boggess, City Engr.

Ky., Sturgis.—Citizens' Water-works Co., capital \$30,000, organized to construct water-works.

Miss., Kreele.—Southern Paper Co., Moss Point, Miss., is proceeding with water-main construction, cost \$15,000.

N. C., Asheville.—City Comms. accepted proposition of W. R. Campbell to install pipe line, pump and reservoir for E. W. Grove.

N. C., Winston-Salem.—City, Jos. Firth, Commr. Public Works, will construct concrete dam across Salem Creek; contain 8000 cu. yds. concrete; bids received Feb. 5; plans and specifications obtainable office of Commr. (See Machinery Wanted—Concrete Dam.)

Okla., Carnegie.—City, Ray Benward, Mayor, will improve and extend water-works; daily capacity 90,000 gals.; \$12,000 available; install deep well pump. Lately noted. (See Machinery Wanted—Pump; Motor.)

Okla., Miami.—City contemplates construction of reinforced concrete reservoir; 12x85x145 ft.; 1,500,000 gals. capacity; R. Q. James, City Clerk.

Okla., Pawhuska.—City plans to vote on \$200,000 to \$300,000 bonds to establish water system. Address The Mayor.

Okla., Stillwater.—City will construct concrete and earthen dam and reservoir for water-works; 1500 yds. concrete, 2000 yds. earth work, rip-rap, etc.; erect pumping station building; bids opened Feb. 3; Mackintosh-Walton Co., Engr., State National Bank Bldg., Oklahoma City; J. L. Moore, Commr. of Finance and Accounting.

Tex., San Benito.—San Benito Water & Electric Co. contemplates improvements.

Va., Petersburg.—City is considering additional bond issue of \$200,000 to complete water and sewer systems. Address The Mayor.

### Woodworking Plants.

Md., Baltimore.—Furniture.—August A. Gussinger of A. A. Gussinger & Son, Mountford Ave. and Pennsylvania R. R., purchased factory building on 8th St. near Fayette and plans to equip as furniture factory.

N. C., Elizabeth City.—Barrels.—Elizabeth City Barrel Co., capital \$20,000, organized with W. W. Newbern, Pres.; N. Howard Smith, Mgr.; J. V. Whitehurst, Gen. Supt.; will establish plant to manufacture barrels, fruit and berry baskets, etc.; initial daily capacity 3000 bbls.

Va., Norfolk.—Wood Products.—Virginia Wood Product Co., J. B. Steel, Mgr., will rebuild plant reported burned at loss of \$35,000.

Va., Richmond.—Furniture.—Roundtree-Cherry Corp. increased capital from \$100,000 to \$500,000.

Va., Richmond.—Wood Products.—Richmond Cedar Works increased capital from \$500,000 to \$1,425,000.

W. Va., Logan.—Caskets.—Huntington Casket Mfg. Co., capital \$50,000, inceptd. by C. E. Bryant and others.

### Fire Damage

Ala., Huntsville.—Lincoln Mills' commissary

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and cottage; loss on buildings and contents \$45,000.

Ark., Murfreesboro.—Several buildings at Kimberly mines near Murfreesboro, owned by Q. M. Miller; reported loss \$75,000.

Ky., Pine Mountain.—Burkham Hall at Pine Mountain Settlement School.

La., Gretna.—Southern Cotton Oil Co.'s plant; loss \$45,000.

Md., Barton.—E. F. Creutzburg's warehouse; residences of Dr. S. A. Boucher, Joseph Davis, Mrs. Jesse Lingo, Harrison Davis, Andrew Baugh, Ellis Dye, Henry Creutzburg Estate (7); Presbyterian Church (address The Pastor); business block, including Schramm Brothers' meat market; apartment, occupied by Mrs. John Symons and United Mine Workers' Hall; Dempsey Bldg., occupied by Daniel Schramm as saloon and rooms of Mrs. Dempsey and Mrs. P. Ross; restaurant conducted by John A. Kyle; Davis Brothers' poolroom; total loss \$150,000.

Md., Hagerstown.—H. E. Carter's residence.

Md., Reisterstown.—Chas. King's barn near Pleasant Grove; loss, including contents and stock, \$5000.

Md., Towson.—Residence near Greenwood, owned by Judge Charles J. Knox of Orphans' Court, Baltimore County; loss \$2000.

Miss., Fayette.—Alphonse Hirsch's residence and S. Hirsch Co.'s business building.

Miss., Jackson.—Main building of Mississippi

Insane Hospital, Dr. C. D. Mitchell, Supt.; loss about \$3000.

Mo., Kansas City.—Building occupied by Midwest Electrical Co., Midwest Chandelier Co. and American Plating Works; loss \$20,000.

Mo., St. Louis.—Liberty Foundry's plant and machinery; loss \$20,000.

N. C., Monroe.—J. T. Shute's building, occupied by Union Drug Store, A. M. Secrest, Mgr.; loss \$7000.

N. C., Oxford.—H. H. Eatman's dwelling, near Oxford.

N. C., Morganton.—Mr. Carter's residence.

N. C., Wadesboro.—Coxe-Bennett Lumber Co.'s planing-mill; loss \$6000.

Tenn., Chattanooga.—Chattanooga Cereal Co.'s plant; loss \$100,000.

Tex., Corsicana.—Building owned by Mrs. R. S. Neblett.

Tex., Ganado.—Ganado Mill & Elevator Co.'s elevator.

Tex., Orange.—Petty Bldg. and D. Mossiker's store, owned by Petty Estate.

Tex., Palestine.—Residences of Mrs. Mary Rose and Hugo Reitch.

Va., Clifton Forge.—E. Bennett's dwelling.

Va., Lynchburg.—Gymnasium at Virginia Episcopal School, near Lynchburg; Rev. Dr. Robert C. Jett, Principal.

Va., Norfolk.—Virginia Wood Products plant; loss \$35,000.

W. Va., Martinsburg.—Lord & Lord's abattoirs; loss \$2500.

vice, Dr. F. A. Starratt, Executive Secy., will make minor repairs only to building for soldiers; chiefly redecorating; cost \$800. (Lately reported to expend about \$10,000.)

La., Baton Rouge.—Young Men's Christian Assn. opens bids about Feb. 20 to erect Y. M. C. A. building; 2 stories; brick; cost \$75,000; Shattuck & Hussey, Archts., 19 S. La Salle St., Chicago. (Previously noted.)

La., New Orleans.—Union Labor Temple Assn. will soon begin erection of proposed labor temple; 8 stories; auditorium with seating capacity of 8000; store and bank on first floor; cost \$200,000; James Leonard, W. L. Todd, Jr., R. C. Sutton and others, Board of Directors. (Previously noted.)

Md., Cumberland.—Allegany Trades Council, John V. Fisher, Secy., will erect Labor Temple; contain auditorium, dance hall, lodge halls, stores on ground floor, etc.

### Bank and Office.

Ala., Collinsville.—First National Bank organized with \$25,000 capital by W. E. Killian, "rest.; J. D. Jordan, V.-P.; W. S. Ward, Temporary Cashier; will erect \$7000 building; brick; 50x35 ft.; fireproof; tile floors; open bids at once. Address Mr. Killian. (See Machinery Wanted—Bank Equipment; Vult.)

Fla., West Palm Beach.—Chamber of Commerce will erect building; cost \$4000.

Ga., Conyers.—First National Bank, E. P. McDaniel, Chrmn. of Building Committee, has plans by A. Ten Eyck Brown, Forsyth Bldg., Atlanta, for bank building; 30x72 ft.; 2 stories; brick and terra cotta; marble trim and screen; 4 columns across front; tar and gravel roof; cost \$25,000; low pressure steam heat, \$1000; bids opened January 11, award held up. (Previously noted.)

La., New Orleans.—Union Labor Temple Assn. will soon begin erection of proposed labor temple; store and bank on first floor. (See Association and Fraternal.)

Md., Baltimore.—Seaboard Bank is having plans prepared by Robert L. Harris, 1131-33 Calvert Bldg., Baltimore, for alterations to building at Park Ave. and Fayette St.; reinforced concrete; steam heat; electric lighting; push-button automatic elevators; cost about \$50,000; date letting contract not decided. Address Archt.

Mo., St. Louis.—Russmann Refrigerator & Rutchery Supply Co. is having plans prepared by H. J. Schulte, 1517 N. 23d St., St. Louis, for office building and factory; concrete and steel; 1 story; cost \$15,000; owner receives bids about March 1.

Miss., Drew.—Merchants & Planters' Bank will remodel bank building; cost \$15,000 to \$20,000, including new fixtures; Raymond B. Spencer, Archt., Goodwyn Institute Bldg., Memphis, Tenn.; construction to proceed at once on percentage basis.

Okla., Oklahoma City.—Liberty National Bank will erect 3-story addition to building.

Okla., Oklahoma City.—Tradesmen's Bank purchased old Western National Bank building and will reconstruct; use walls, roof and foundation; fireproof; lower first floor to level of sidewalk. Install elevators, etc.; 3 additional stories planned later.

S. C., Greenville.—Working Benevolent Realty Co., capital stock \$30,000, Incptd. by E. W. Biggs, Jas. A. Talbert and W. E. Payne; will erect store and office building at East Broad and Falls Sts.; 3 stories; brick; cost about \$70,000.

S. C., Lake City.—Bank of Lake City is having plans prepared by Chas. C. Wilson, Columbia, for remodeling bank building; plans ready in spring.

S. C., Marion.—Planters' Bank has plans by

## BUILDING NEWS

### BUILDINGS PROPOSED

#### Apartment-Houses.

Fla., Miami.—Norman MacInnes purchased property between 23d and 24th Sts., Avenue D and Miami Ave.; will remodel building on site for fireproof apartments, designed to permit conversion later into flatiron building covering entire lot.

Fla., St. Petersburg.—White L. Moss, Pineville, Ky., is having plans prepared by W. S. Shull, St. Petersburg, for apartment-house.

Ga., Atlanta.—Mrs. Carrie W. Walit will erect apartment-house at 12 Wabash Ave.; 4 apartments; cost \$12,000.

Md., Baltimore.—Simon Rief, 100 N. Chester St., and associates purchased dwelling at Eutaw Place and Whitelock St.; will convert into apartments.

Md., Hagerstown.—A. K. Cogman will erect addition to apartment-house on W. Franklin St.

Mo., Kansas City.—C. E. Phillips Building Co. will erect apartment-house at 10th and Central Sts.; 3 stories and basement; 42x119 ft.; brick; stone trim; composition roof; cost \$60,000; N. E. Peters, Archt., 715 Dwight Bldg., Kansas City; construction by owner, who receives sub-bids.

Mo., St. Louis.—William H. Baker will erect 2 flat buildings on St. Louis Ave., between Marcus and Euclid Aves.; brick.

S. C., Columbia.—J. Rinkin has plans by Chas. C. Wilson, Columbia, for frame apartment-house; 4 apartments; 2 stories; heat not determined.

Tenn., Nashville.—South Nashville Improvement Assn., J. J. Hill, Chrmn. Building Committee, will erect apartment-house at Lindsley and First Aves.; 18 apartments; cost \$50,000.

Tex., Fort Worth.—William Monnig is inter-

ested in organization of stock company with \$300,000 capital to erect apartment-houses and dwellings.

Tex., Fort Worth.—Dr. C. A. Hickman will erect apartment-house at Burnet and 6th Sts.; 3 stories; brick; 42 rooms; construction begins March 1.

Va., Danville.—Dr. T. W. Edmunds has plans by Heard & Chesterman, Arcade Bldg., Danville, for apartment-house at Jefferson and Main Sts.; 67x139 ft.; 4 stories; 24 suites; porch for each floor 8x14 ft.; encased in glass; hall and hallways to be fireproof; service hall; steam heat; cost about \$65,000. (Lately noted.)

Va., Norfolk.—W. D. Preston of Preston's Cut-Rate Pharmacy will erect store and apartment building. (See Stores.)

Va., Norfolk.—G. T. Conwell will erect 5-family apartment-house; brick; cost \$10,000.

Va., Richmond.—E. L. De Laney will erect apartment-house at Sheppard St. and Monument Ave.; 32-ft. front, 114 ft. deep and 36-ft. rear; cost \$35,000; construction by owner.

W. Va., Huntington.—John Wigner is having plans revised by L. J. Dean, Foster Bldg., Huntington, for 3-family apartment-house; 3 stories and basement; 25x46 ft.; brick and frame; cost \$3000; architect will probably receive bids about March 1.

W. Va., Huntington.—L. J. Dean, Foster Bldg., is preparing plans for apartment-house; brick; 60x89 ft.; 9 apartments; 3 stories and basement.

#### Association and Fraternal.

Ark., Hope.—Elks Lodge No. 1109 plans to erect club building; contain gymnasium, sleeping-rooms, parlors, etc.

Ga., Americus.—War Camp Community Ser-

Chas. C. Wilson, Columbia, to remodel bank building; pressed-brick front; marble trimmings, etc.; bids being received.

Tenn., Memphis.—National City Bank plans to increase capital stock to \$400,000; will remodel building on Madison Ave.; install stone front, enlarge mezzanine floor, change interior, etc.; cost \$15,000.

Tex., Dennville.—First State Bank will erect building; 32x52 ft.; brick; concrete floors; cost about \$3000; construction begins at once. Address C. C. Nelms, Caldwell, Tex.

Tex., Fort Worth.—Farmers and Mechanics' National Bank, J. W. Spencer, Pres., will erect building at 7th and Main Sts.; 100x95 ft.; 12 to 16 stories; fireproof; cost \$800,000 to \$1,250,000; other details not determined; construction will probably be held in abeyance until latter part of year. (Lately noted.)

Tex., Fort Worth.—P. C. Levy and W. R. Mitchell are reported considering erecting theater and office building on Main St. (See Theaters.)

Tex., Fort Worth.—J. W. Mitchell will not remodel hotel for office building except painting and calsonining. (Lately noted.)

Va., Charlottesville.—National Bank of Charlottesville, R. T. Minor, V-P., plans to erect bank and office building; architect not selected; details not determined. (Lately noted.)

Va., Norfolk.—Norfolk Bank & Trust Co. will expend \$3500 for alterations to building at Charlotte and Granby Sts.

W. Va., Huntington.—Henry Persun will erect shop and office building; 40x60 ft.; 1 and 2 stories; cement block; construction by owner.

### Churches.

Ala., Birmingham.—St. James Methodist Church, Rev. I. T. Walker, Pastor, has plans by W. A. Rayfield & Co., Birmingham, for building at 41st St. and 3d Ave., North; 60x100 ft.; ordinary construction; metal roof; pine inclined floors; hot-air heat; electric lighting; cost \$10,000 day labor; bids opened in May. Address Architects.

Ga., Decatur.—Men's Business League of Decatur Baptist Church organized with L. L. Perrine, Pres.; J. B. Overton, V-P.; J. J. Robertson, Secy. and Treas.; plans to erect building.

La., Shreveport.—Highland Avenue Baptist Church, Rev. C. P. Roney, Pastor, 1333 Jennings Ave., will erect building at Olive and Stevens Sts.; steel and reinforced concrete construction; brick facing; cost \$75,000 to \$100,000; expect to let contract about June; architect not selected and other details not determined. (Lately noted.)

S. C., Lake City.—Baptist Church has plans by Chas. C. Wilson, Columbia, for building; brick-slate roof; steam heat; 75x100 ft.; cost \$25,000; contract in spring.

Tex., Brownwood.—Southern Presbyterian Church, Rev. W. Gray, Pastor, will erect building.

Va., Lynchburg.—Rivermont Avenue Methodist Church, Rev. J. C. Robertson, Pastor, 1110 Early St., is having plans prepared by Craighill & Cardwell, People's Bank Bldg., Lynchburg, for Sunday-school building; probably brick; 2 stories; cost \$20,000.

### City and County.

Fla., Oldsmar.—Engine-house.—City is having plans prepared by Albert Haworth, Oldsmar, for fire-engine house.

Ga., Atlanta.—Cyclorama and Museum.—City votes Feb. 5 on \$1,000,000 bonds, including \$100,000 for erection of cyclorama and museum in Grant Park. Address The Mayor.

La., Baton Rouge.—Courthouse and Jail.—East Baton Rouge Parish Police Jury plans to issue bonds for courthouse and jail. (See Courthouses.)

La., Jena.—Courthouse and Jail.—La Salle Parish Police Jury plans to issue bonds for jail, courthouse and roads. (See Courthouses.)

N. C., Kinston.—Recreation Building, etc.—City is interested in establishing public park and playground; erect community recreation building to contain reading and music-rooms, gymnasium, swimming pool; plans also include paving, iron railing, terracing, etc. Address The Mayor.

N. C., Mount Airy.—Municipal Building.—City plans to erect municipal building on Moore St.; 2 stories and basement; will contain offices of mayor, Electric Light & Power Co., fire and police departments, Chamber of Commerce, jail, etc. Address The Mayor.

Okla., Frederick.—Memorial.—Chamber of Commerce is promoting erection memorial building to contain auditorium, gymnasium, natatorium, etc.

Tenn., Greenville.—City Hall, Streets, etc.—City is considering bond issue to erect city hall, repair sewers, build streets, etc.; plans not definite. Guy Drew, City Clk.

Tenn., Nashville.—Market-house.—Market-house Assn., J. J. Hill and others, committee, is considering tentative plans by Thos. W. Gardner, Nashville, for market-house on present site; probably 3 stories; steam heat; refrigeration plant, etc.; will petition city to issue bonds for erection. (Lately noted.)

Tex., Canadian.—Jail.—Hemphill County will probably erect jail building; cost \$12,000. Address County Judge.

Tex., Seminole.—Courthouse and Jail.—Commissioners' Court of Gaines County meets Feb. 10 to select architect to prepare plans and superintend erection of courthouse and jail. (See Courthouses.)

Va., Newport News.—Jail.—Commission on Buildings and Grounds receives bids until Feb. 5 to repair jail building, erect additional story, equip with cages, etc.; plans with City Engr.; Floyd Hudgins, City Clerk.

### Courthouses.

Ga., Macon.—Bibb County votes March 6 on \$1,500,000 bonds, to include \$40,000 for courthouse, \$400,000 for schools and \$700,000 for paved roads and bridges; J. H. Heard, Chrmn. County Comms. (Lately noted.)

La., Baton Rouge.—East Baton Rouge Parish Police Jury plans to issue bonds for courthouse and jail.

La., Jena.—La Salle Parish Police Jury plans to issue bonds for courthouse, jail and roads.

Tex., Seminole.—Commissioners' Court of Gaines County meets Feb. 10 to select architect to prepare plans and superintend erection of courthouse and jail; cost about \$75,000. Address T. O. Stark, County Judge, Seminole. (Lately noted.)

### Dwellings.

Ala., Selma.—R. B. Hudson opens bids in February for bungalow; 25x65 ft.; ordinary construction; composition shingle roof; pine and oak floors; hot-air heat; city lighting; cost \$5000; W. A. Rayfield & Co., Archts., Birmingham, may be addressed.

Ark., Texarkana.—H. A. Munn is reported to erect 25 dwellings on Riverland ranch.

Ark., Texarkana.—F. McKeehan will erect residence and garage; 7 rooms.

D. C., Washington.—Thos. A. Jameson, 59 New Jersey Ave. N. W., will erect number of residences at 17 to 27 Franklin St. N. E.; 6

rooms, bath and garage; tin roof; wood floors; cost \$3500; heating, \$450; lighting, \$100; plans and construction by owner.

Fla., Ormond Beach.—G. Blake Smith, care of Miss Stout, is having plans prepared for residence.

Fla., St. Petersburg.—Louis Huenke, care of Mrs. Harry Kommink, will erect dwelling in Davista.

Ga., Augusta.—Mrs. W. W. Partridge has plans by G. Lloyd Preacher, Augusta, for residence; brick and stucco on hollow tile; slate roof; cost \$15,000.

Ga., Savannah.—G. W. Schultz will erect 2-story concrete residence at 404 E. 39th St.; also 1-story frame and iron garage.

Ga., Willey.—T. B. Ashe has plans by W. A. Rayfield & Co., Birmingham, for bungalow; 35x50 ft.; ordinary frame construction; metal roof; pine floors; hot-air heat; electric lighting; cost \$5000 day labor; bids opened in March. Address Architects.

Ky., Ashland.—Richard M. Bates, First National Bank Bldg., Huntington, W. Va., is preparing plans for double residence; 2 stories; stucco on lath or tile.

Ky., Marion.—E. L. Harpending will erect residence; frame; 5 rooms; 28x36 ft.; shingle roof; oak floors; pipeless heater; electric lights; concrete sidewalks; open bids March 1. (Lately noted.)

La., Shreveport.—T. A. Jordan will erect dwelling; frame; cost \$4500.

Md., Baltimore.—Cedarcroft Land Co., care of George M. Lamb, Sycamore and Hollin Roads, is having plans prepared by E. L. Palmer, Jr., 513 N. Charles St., Baltimore, for 3 or 4 cottages at Cedarcroft; 2½ stories; stucco and frame; cost \$4000 to \$5000 each.

Md., Baltimore.—Millard F. Carter has plans by Geo. Wessel, 614 N. Dukeland St., Baltimore, for eleven 2-story dwellings at 3100-28 Windsor Ave. and four at 2300-06 Rosedale St.; cost about \$40,000. (Previously noted.)

Md., Baltimore.—James Keely, 1123 Poplar Grove St., will erect 12 dwellings on west side of Denison St., south of Harlem Ave.; also 19 dwellings on northwestern corner of Edmondson Ave. and Denison St.; 2 stories; 14x15 ft.; cost \$19,000 and \$41,000, respectively.

Md., Baltimore.—Charles Dimling is having plans prepared by John R. Forsythe, 232 St. Paul St., Baltimore, for two 2½-story brick dwellings at Hillen St. and Forest Park Ave.; stone foundations; slate roofs; hardwood floors; steam heat; electric lights; cost \$10,000 each.

Md., Hagerstown.—Augustus Ludwig will let contract to Geo. B. McWolf, Hagerstown, to erect residence on Boonshoro Pike; 43x50 ft.; stucco, hollow tile and timber construction; shingle roof; wood floors; hot-water or vapor heat; construction to begin at once; H. E. Yessler, Archt., Hagerstown, may be addressed. (Lately noted.)

Mo., Jefferson City.—Col. James M. Hays purchased farm at confluence of Osage and Missouri rivers; will expend \$25,000 to erect residence, outbuildings, etc.

Md., Towson.—W. Gill Smith is having plans prepared by Walter M. Gieske, 65 Gunther Bldg., Baltimore, for residence near Towson; 2½ stories; frame; slate roof; hot-water heat; electric lights. (Lately noted.)

Md., Towson.—Julian White Ridgeley, Mutual Building Insurance Co., Union Trust Bldg., Baltimore, is having plans revised by Thomas Bond Owings, 347 N. Charles St., Baltimore, for residence and garage near Towson; 50x195 ft.; brick and stone; cost \$25,000.

Miss., Schlatter.—G. R. Stokely, Drew, Miss., has plans by Raymond B. Spencer, Goodwyn

Institute Bldg., Memphis, Tenn., for residence on plantation near Schlater; cost about \$5000.

Mo., Kansas City.—John L. Blake, 7206 Bellefontaine St., will erect residence at 5732 Wayne St.; 2 stories and basement; 29x43 ft.; stucco; shingle roof; cost \$5000; construction by owner.

Mo., Kansas City.—Ellis Realty & Building Co., 323 Rialto Bldg., will erect 3 residences on Indiana St.; 29x36 ft.; 1 story and basement; stucco; shingle roof; total cost \$6000; construction by owner.

Mo., Kansas City.—Zurn Building & Investment Co. will erect 4 dwellings on 40th St.; 2 stories and basement; 29x34 ft.; total cost \$18,000; construction by owner.

Mo., Kansas City.—Gate City Building Co., 410 Reliance Bldg., will erect 44 bungalows in Washington addition; 15 on 35th St.; 12 on Hardesty St. and 4 on Jackson Ave.; 1 and 2 stories; 24x40 ft.; frame; shingle roof; cost \$2500 to \$5000 each; construction by owner.

Mo., St. Louis.—E. B. Pryor will erect dwelling at 5257 Lindell Ave.; 2 stories; cost \$24,000.

Mo., St. Joseph.—J. D. Richardson has plans by R. F. Heim, 201 Bartlett Trust Bldg., St. Joseph, for dwelling; 3 stories and basement; reported cost \$80,000.

Mo., St. Louis.—C. T. Swanhart will erect two 2-story dwellings; cost \$3000.

Mo., St. Louis.—O. J. Boehmer, 3500 Palm St., is preparing plans for dwelling and bakery; 2 stories; 40x120 ft.; brick, concrete and stucco; cost \$8000.

N. C., Blowing Rock.—W. L. Alexander, Charlotte, has plans by Willard Rogers, Charlotte, for dwelling; frame and stone; steam heat; hardwood floors; native materials; cost \$25,000; contractor selected.

N. C., Cary.—J. A. Smith will erect residence previously noted; slate or galvanized-iron roof; hardwood floors; steam or hot-water heat; electric lighting; plans by owner; bids opened May 1. (See Machinery Wanted—Building Materials; Pump.)

N. C., Elkin.—Rev. S. D. Johnson, Hamptonville, N. C., purchased site on Bridge St. and will erect residence.

N. C., Gastonia.—Chas. C. Wilson, Columbia, S. C., is preparing plans for 4 residences; total cost about \$150,000; other details not available.

N. C., Winston-Salem.—Hanes Rubber Co. will construct mill village near Winston-Salem; erect number bungalows.

N. C., Wilmington.—L. W. Moore's Real Estate Agency and M. Shrier are reported to erect 2 dwellings in Carolina Place.

Okla., Oklahoma City.—Jack Gill will erect 2-story residence at 3701 Classen Blvd.; cost \$15,000.

Okla., Oklahoma City.—A. R. Nelson will erect 2-story residence; cost \$5000.

Okla., Oklahoma City.—J. I. Trippett will erect dwelling; frame; cost \$4000.

Okla., Tulsa.—W. W. Fox will erect 1-story frame dwelling; cost \$3000.

Okla., Tulsa.—T. J. Byrnes will erect frame dwelling in Fitzpatrick addition; 1 story; cost \$5000.

Okla., Tulsa.—Viner Investment Co. will erect 2 dwellings on North Santa Fe St. in Park Hill addition; brick; 1 story; cost \$5000 each.

Okla., Tulsa.—R. S. Dodd will erect 1-story frame dwelling in Orcutt addition; cost \$5000.

S. C., Greenwood.—J. M. Gaines will erect residence.

S. C., Bishopville.—Dr. H. J. Jennings has plans by Chas. C. Wilson, Columbia, for dwelling; 2 stories; brick veneer; steam heat;

hardwood floors; slate roof; day labor; construction begins in spring.

Tex., Cass.—J. Wilbanks will erect residence near Cass; 6 rooms.

Tex., Cass.—D. B. Wood will erect 6-room dwelling near Cass.

Tex., Dallas.—E. W. Copley will erect dwelling; 2 stories; 10 rooms; cost \$5000.

Tex., Fort Worth.—W. S. Wright will erect frame dwelling at 2517 Hemphill St.; 1 story; cost \$5000.

Tex., Fort Worth.—William Monnig is interested in organization of stock company to erect dwellings and apartment-houses. (See Apartment-Houses.)

Tex., Fort Worth.—E. B. Mallow will erect 1-story frame dwelling; cost \$3500.

Tex., San Antonio.—W. A. Baity will erect \$500 residence in W. Craig Place; also \$4800 residence on Woodlawn Ave.; frame.

Tex., San Antonio.—L. Grisenbeck will erect 10-room dwelling on E. Johnson St.; cost \$6000.

Va., Fairview.—R. L. Cawley has plans by H. M. Miller, Roanoke, for dwelling; 32x40 ft.; 2 stories; hollow tile and stucco; cost \$10,000.

Va., Lynch Station.—D. E. Lambert has plans by H. M. Miller, Roanoke, for dwelling; 26x32 ft.; 2 stories; cost \$2500; owner will soon receive bids.

Va., Norfolk.—Lowe & Sawyer will erect 2 frame dwellings at 19th St. and Llewellyn Ave.; cost \$3500 each.

Va., Norfolk.—Nathan Reichenenthal will erect dwelling on Myers Ave.; frame; cost \$6000.

Va., Norfolk.—W. H. Hopkins will erect frame dwelling; cost \$3500.

Va., Norfolk.—O. L. West will erect dwelling; frame; cost \$4500.

Va., Richmond.—Mrs. C. Wollseffer, 2929 W. Cary St., plans to erect store and residence. (See Stores.)

W. Va., Charleston.—N. E. Shal will erect residence; 2 stories; 28x32 ft.; brick veneer; 1 rooms; cost \$3000.

W. Va., Hinton.—M. D. Haptonstall has plans by F. H. Gowing, 18 Tremont St., Boston, for bungalow; 32x44 ft.; frame.

W. Va., Fairmont.—C. O. Jackson will erect dwelling; frame; cost \$3000.

W. Va., Holden.—Main Island Creek Coal Co. is reported to erect 75 miners' dwellings; 2 stories; stucco on lath or tile.

W. Va., Parkersburg.—Frank L. Townsend plans to erect two 2-story frame dwellings on Washington Ave.

W. Va., Welch.—Welch Development Co., Masonic Bldg., is reported to erect 10 frame dwellings on Court St.

W. Va., Wheeling.—L. C. Massey, Clerk County Court, plans to erect 2 cottages on Second Ave.; frame; 1½ stories; total cost \$4500.

## Government and State.

Ala., Decatur.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, opened bids to erect postoffice; S. M. Plato, Marion, Ind., is lowest bidder at \$55,370. (Previously noted.)

Md., Annapolis.—Seamanship and Navigation Building.—Bureau of Yards and Docks, Navy Dept., C. W. Parks, Chief, Washington, is having plans prepared by J. H. De Sibour, Hibbs Bldg., Washington, D. C., for seamanship and navigation building; granite; cost \$600,000; probably receives bids about Feb. 15.

Mo., Harrisonville.—Postoffice.—Treasury Department, Jas. A. Wetmore, Acting Supervising Archt., Washington, opened bids to con-

struct postoffice; W. D. Lovell, 1415 Southeast 8th St., Minneapolis, Minn., is lowest bidder at \$62,800. (Previously noted.)

Okla., Shawnee.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, opened bids to erect postoffice; C. E. Goodhand, Chadron, Neb., is lowest bidder on limestone construction at \$112,750. (Previously noted.)

## Hospitals, Sanitariums, Etc.

Ky., Louisville.—Board of Public Works will expend \$25,000 to remodel old Eruptive Hospital; M. H. Thatcher, member of Board of Public Works.

Mass., West Point.—Ivy Hospital, Dr. Price Ivy, Mgr., will improve building; install hot-water heating, elevator, furnishings and equipment, etc.

N. C., Oxford.—Oxford Orphanage, R. L. Brown, Supt., will erect hospital to be known as W. J. Hicks Memorial Hospital; brick and stone; metal roof.

Tex., Brownwood.—Chamber of Commerce is promoting plans for erection of memorial hospital; cost \$150,000.

Tex., Dallas.—Dallas County and City of Dallas have plans by F. J. Woerner, 503 Sumpter Bldg., Dallas, for tuberculosis hospital on Woodlawn Hospital grounds; about 150x40 ft.; reinforced concrete; built-up roof; concrete floors; heating not determined; elevator; cost \$40,000. (Lately noted.)

Va., Charlottesville.—State Board of Health, Dr. Ennon Williams, Commr., Richmond, is having plans prepared by Chas. M. Robinson, Times-Dispatch Bldg., Richmond, for tuberculosis sanatorium; preliminary plans being made for entire plant; only 1 building contemplated at present. (Lately noted.)

## Hotels.

Ark., Helena.—Phillips County Hotel Co., capital stock \$50,000, plans to erect hotel.

Fla., Howey.—W. J. Howey, 921 Stock Exchange Bldg., Chicago, will erect building to replace Bougainville Hotel, lately noted damaged by fire at loss of \$50,000; construction will not begin until later in season.

Okla., Broken Bow.—Jesse Shipp will erect hotel with cafe in connection; brick.

Okla., Durant.—Durant Commercial Assn. is promoting organization of company to erect hotel; 50 rooms.

Tex., Ranger.—W. T. Flipplin and W. A. Suddeth will erect hotel on Main St.; site 90x150 ft.; brick; cost \$60,000 to \$70,000; also erect theater; site 40x100 ft.; cost \$32,000 to \$40,000.

## Miscellaneous.

Fla., St. Petersburg.—Undertaking.—S. D. Harris will erect building at Central Ave. and 6th St. for undertaking establishment; 2 stories; contain chapel, morgue, display-rooms, etc.

La., Shreveport.—Cafe.—Merchants' Cafe, capital stock \$10,000, incptd. by Samuel Featherstone, W. K. Henderson, J. C. Pugh, Jr., and W. S. Dunkin.

Md., Baltimore.—Shed.—R. C. Reed, 2304 Frederick Ave., will erect shed; 37x40 ft.; brick and frame; composition or slag roof.

N. C., Kinston.—Undertaking Establishment.—D. E. Wood & Co. are reported to erect undertaking establishment; 3 or 4 stories.

Okla., Oklahoma City.—Baseball Park.—Oklahoma City Baseball Club, Jack Holland, owner, is having plans prepared by Leonard Bailey, Oklahoma City, for baseball park; grandstand to seat 4000; cost \$20,000. (Lately noted.)

Tex., Fort Worth.—Grandstand.—Fort Worth

Baseball Club, Paul A. LaGrave, Secy., will rebuild grandstand at baseball park.

Tex., San Antonio.—Club.—San Antonio Country Club will erect building at New Braunfels Ave.; cost \$3000.

Va., Roanoke.—R. J. Wright purchased site at Church Ave. and Nelson St. and will erect hotel; 50x200 ft.; 3 stories; brick; cost \$40,000; ground floor for garage; plans prepared.

### Railway Stations, Sheds, Etc.

La., Lake Charles.—Lake Charles & Northern R. R. (Southern Pacific Co.), I. A. Cottingham, Ch. Engr., Houston, Tex., will erect shed 80x34 ft.; construct concrete surface about depot, etc.

### Schools.

Ala., Tuscaloosa.—Jas. H. Foster, Secy. Board of Education, receives bids until Feb. 27 to erect addition to high-school building; 58x131 ft.; 2 stories and basement; brick walls; sanitary plumbing and low-pressure steam heat to be installed by owner. (Previously noted to have plans by W. E. Bennis, Bessemer, for school.)

Ala., Tuskegee.—Tuskegee Institute, R. E. Taylor, Director Mechanical Industries, is having plans prepared by W. A. Rayfield & Co., Birmingham, for Slater-Armstrong-Trader buildings; 1 main building and 5 units; fireproof; tile, cement and wood block floors; Johns-Manville shingle and roll roofing; heating and lighting from plant on grounds; cost \$200,000; construction by student labor; contract for special features to be let later; construction begins in April. Address Architects. (See Machinery Wanted—Building Materials; Fireproofing; Blocks (Wood); Vaults.)

Ark., Burdette.—Three States Lumber Co., C. H. Gilchrist, Pres., is reported promoting erection of school building; pressed brick; probably tile roof; steam heat; Regan & Welser, Architects, Bank of Commerce & Trust Bldg., Memphis, Tenn. (Lately noted.)

Fla., Brooksville.—Special Tax Dist. No. 1 and Special Tax Dist. No. 7 vote Mch. 3 on \$25,000 and \$15,000 bonds, respectively, to erect and equip school buildings; W. O. Lemasters, County Supt., Brooksville. (Lately noted to vote Jan. 27.)

Ga., Atlanta.—Gov. Hugh M. Dorsey receives bids March 19 for location of Twelfth Dist. Agricultural High School building.

Ga., Franklin.—Heard County voted \$15,000 bonds to rebuild vocational school building; D. B. Whitaker, Chmn.; G. A. Adams, Secy. School Board. (Previously noted.)

Ga., Macon.—Bibb County votes March 6 on \$1,500,000 to include \$400,000 for schools, etc. (See Courthouses.)

Ky., London.—Bennett Memorial School will erect high school and auditorium building; cost \$50,000.

Miss., North Carrollton.—City will erect \$15,000 school building; construction to begin about Apr. 1; W. T. Terney, Trustee.

Mo., Grant City.—Board of Education, Leo Phipps, Secy., is considering erection of high-school building; cost \$50,000.

N. C., Bolling Springs.—Board of Trustees, Bolling Springs High School, E. B. Hamrick, Treas., plans to erect school building as memorial; to contain auditorium, society halls, music-rooms, art and domestic-science rooms, etc.; cost \$25,000.

N. C., Oxford.—City is considering election on \$50,000 bond issue to erect school building; W. J. Mitchell, Mayor.

Okla., Hooker.—School Board has plans by Mann & Gerow, Hutchinson, Kan., for school building; 54x24 ft.; brick and reinforced con-

crete; composition roof; pine and concrete floors; steam heat; cost \$40,000; construction begins about March 1. (Lately noted.)

Okla., Langston.—State Board of Affairs, Oklahoma City, plans to erect industrial building and dormitory at colored Agricultural and Mechanical College; cost \$50,000 and \$5000 respectively.

Okla., McAlester.—School Board, W. G. Masterson, Supt. of Education, selected architects to prepare plans for school building to replace burned structure. (Lately noted to vote Feb. 11 on \$250,000 bonds.)

Okla., Oklahoma City.—City votes March 19 on \$650,000 bonds for school buildings; John H. Hope, Pres., Board of Education; J. G. Stearley, Clerk. (Lately noted.)

Okla., Sand Springs.—Board of County Commrs. receives bids submitted to Lewis Cline, County Clerk, until Feb. 17 to erect addition to brick school building in separate school district No. 19; plans and specification on file in office of Mr. Cline.

Tex., Belton.—Baylor College, J. C. Hardy, Pres., is having plans prepared by R. H. Hunt, Chattanooga, Tenn., for enlargements to college.

Tex., Dallas.—Southern Methodist University, Dr. R. S. Hyer, Pres., plans to erect gymnasium; will contain basket-ball and hand-ball courts, bowling alley, indoor track, spectators' balcony, officers' and refreshment-rooms, etc.; cost \$25,000.

Tex., San Marcos.—San Marcos Baptist Academy Trustees plan to erect \$100,000 administration building; will contain classrooms, auditorium, library, laboratories, president's and registrar's offices, commercial, music, domestic and manual arts departments.

W. Va., Elkins.—Davis & Elkins College, Dr. Jas. E. Allen, Pres., plans to erect building; 2½ stories; about 110x40 ft.; stone; tile roof; hardwood floors; heating from coal furnaces; city power lighting; cement sidewalks; cost about \$60,000; C. L. Harding, Archt., Archt., Woodward Bldg., Washington, D. C. Address Dr. Allen.

### Stores.

Ala., Fairfield.—Mrs. Louise Ferguson, care of Jemison Real Estate & Investment Co., Birmingham, has plans by Miller & Martin, Title Bldg., Birmingham, for store building; 50-ft. front; 1 story; brick; gravel and tar roof; cement floors; cost \$5000; bids now in owner's hands.

Ark., Little Rock.—Henry McCain will erect brick building at 230 W. 14th St.; cost \$3000.

D. C., Washington.—Trustees National Savings & Trust Co., 15th St. and New York Ave., are having plans prepared by Gregg & Lelsenring, 1229 New York Ave. N. E., Washington, to remodel building at 1303 F St.; 18x90 ft.; 2 stories; cost \$12,000; architects receiving bids.

Fla., Jacksonville.—C. E. Hillyer will erect brick building; cost \$2500.

Fla., Oldsmar.—E. H. Ladd, of Oldsmar Hardware & Supply Co., has plans by Albert Haworth, Oldsmar, for store building.

Ga., Atlanta.—Walter P. Andrews will repair Andrews Bldg. at Marietta and Magnolia Sts. for Goodyear Rubber Co.; cost \$12,000.

Ga., Augusta.—Swann Edwards Co. is having plans prepared by Thomas M. Campbell, Johnson Bldg., Augusta, for store building; 40x150 ft.; brick and terra-cotta; composition roof; tile and hardwood floors; vapor heat; electric elevators; cost \$20,000; construction begins May 1. (Lately noted.)

La., New Orleans.—Union Labor Temple Assn. will soon begin erection of proposed

labor temple; store and bank on first floor. (See Association and Fraternal.)

Mid., Frederick.—L. E. Mullinix, West Patrick St., is considering rebuilding store at 28 N. Market St.; 3 stories; brick; cost \$12,000. (Previously noted damaged by fire.)

Miss., Fayette.—S. Hirsch Co. will rebuild and enlarge business building noted damaged by fire.

Miss., Lexington.—Flowers Brothers will erect 2-story brick building.

Miss., Vicksburg.—Stein-Pierce Co., Ben Stein, Pres., will erect business building; concrete; 3 stories.

Mo., Cumberland.—Allegheny Trades Council, John V. Fisher, Secy., will erect Labor Temple; stores on ground floor. (See Association and Fraternal.)

Mo., St. Louis.—Stix, Baer & Fuller Dry Goods Co., owner and operator of Grand-Leader Department Store, is reported to expend \$1,000,000 for improvements to building; will erect 8-story annex at 7th and Washington Sts.; construct mezzanine floor, extending from 6th St. to 7th St.; construct entrance at 7th St.; erect soda fountain at 6th and Lucas Sts.; install fixtures, etc.

Mo., St. Louis.—Booths Candy Shop has plans by G. T. A. Brueggeman, 902 Third National Bank Bldg., St. Louis, for alterations to store building; 1 story; 15x96 ft.; cost \$5000.

Mo., St. Joseph.—S. S. Kresge Co., Detroit, has plans by Eckel & Aldrich, Corby Forsee Bldg., St. Joseph, to erect addition and alter store building; 122x130 ft.; cost \$20,000; architects receiving bids.

N. C., Fayetteville.—Stein Bros. will repair building damaged by fire; repair damage around elevator shaft, roof, etc.; cost about \$6000; construction begun.

N. C., Gastonia.—National Realty Co. is having plans prepared by Chas. C. Wilson, Columbia, S. C., for store building; 52x100 ft.; 2 stories; brick; plans ready Apr. 1; construction begins June 1.

Okla., Broken Bow.—Hoyd Brothers' Cash Store will erect building; 100x140 ft.; 2 stories; brick.

Okla., Oklahoma City.—J. R. Klein will remodel store building at 229-31 W. First St.; cost \$10,000.

S. C., Bishopville.—McLeod Drug Co., has plans by Chas. C. Wilson, Columbia, for store building; 2 stories; 25x110 ft.; brick; limestone front.

S. C., Greenville.—Working Benevolent Realty Co., E. W. Biggs and others, will erect store and office building at East Broad and Falls Sts. (See Bank and Offices.)

Tex., Fort Worth.—William Bryce and Louis J. Wortham will erect brick building at 10th and Monroe Sts.

Tex., Fort Worth.—W. H. Smith will expend \$650 to repair store building.

Tex., Fort Worth.—G. Gibbs will erect 1-story brick store building; cost \$2900.

Tex., San Antonio.—Mrs. A. Ragelen will erect store building at 504 E. Commerce St.; cost \$4000.

Tex., San Antonio.—E. R. Ballard will erect building at 1007 Porter St.; cost \$3000.

Va., Graham.—P. C. Winborne will remodel Bane Block; also erect store building.

Va., Norfolk.—Miller, Rhoads & Swartz will erect additional story; hollow tile; cost \$2500.

Va., Norfolk.—George Karagelen will erect brick store building; cost \$3000.

Va., Norfolk.—W. D. Preston of Preston's Cut-Rate Pharmacy will erect store and apartment building; 2 stories on lower floor; apartments above.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Va., Richmond.—Mrs. C. Wollseffer, 2829 W. Cary St., plans to erect store and residence at Cary and Sheppard Sts.; brick; cost \$7000.

W. Va., Charleston.—C. W. McNulty, 514½ Quarrier St., is preparing plans for store and garage on Hale St.; 2 stories and basement; 24x102 ft.; brick; wood roof trusses; bids received about Feb. 1.

W. Va., Huntington.—John B. Stevenson has plans by Meanor & Handloser, 917 R. & P. Bldg., Huntington, for sales garage; 2 stories; 60x160 ft.; brick, frame and steel; cost \$25,000; architect ready for bids about Feb. 10.

### Theaters.

Ark., Mountain Home.—W. M. De Lapp will erect moving-picture theater.

Fla., Crestview.—Eric von Axelson, Laurel-hill, Fla., will erect moving-picture theater.

Fla., Tampa.—La Belle Amusement Co. is having plans prepared by L. A. Fort of Fort & Parslow, Tampa, for theater at Polk St. and Florida Ave.; fireproof; 3 stories; reinforced concrete; steam and gas heat; electric ventilation and cooling; 2 balconies; seating 2000; contract let within 60 days; cost about \$125,000. (See Machinery Wanted — Theater Equipment.)

Ga., Augusta.—Lenox Theater Co. has plans by G. Lloyd Preacher, Augusta, for theater; fireproof; brick and reinforced concrete; cost about \$50,000.

Ky., Owensboro.—Geo. A. Bleich will erect theater on Fredericka St.; 120x83 ft.; brick; roofing not determined; wood and concrete floors; steam heat; cost \$45,000; architect not selected; probably begin construction in spring. (Lately noted.)

Tex., Fort Worth.—P. C. Levy and W. R. Mitchell, Strand and Hippodrome Theaters, are reported considering erecting theater and office building on Main St., near 10th; site

50x100 ft.; probably 8 stories; about 100 offices.

Tex., Ranger.—W. T. Flippin and W. A. Suddeth will erect theater and hotel. (See Hotels.)

### Warehouses.

Ky., Ashland.—Betterton Ruppert Coffee Co. has plans by J. W. King, Gaylord Bldg., Ashland, for warehouse and coffee-roasting plant; 2 stories; 50x50 ft.; brick.

Ky., Hodgenville.—Farmers' Tobacco Warehouse Co. organized with \$25,000 capital stock by Charles J. Hubbard R. M. Abell, A. B. Twyman and others; will let contract to erect warehouse.

Md., Baltimore.—Owen T. Farley Realty Co. of Boston purchased Baltimore Distillery property at Lendenhall St. and will improve for storage warehouse; build number of floors, install elevator, etc.

Md., Myersville.—Farmers' Exchange Assn. receives bids about Feb. 15 to rebuild warehouse; 40x70 ft.; brick; cost \$4000 to \$5000. (Lately noted damaged by fire.)

Mo., St. Louis.—Polar Wave Ice & Fuel Co. will erect 1-story warehouse at 303 N. Taylor St.; cost \$7000.

N. C., Shelby.—Double Shoals Cotton Mills plan to erect cotton warehouse; 60x100 ft.

S. C., Great Falls.—Bank of Great Falls is reported to erect cotton warehouse; 1000-bale capacity.

Tenn., Chattanooga.—Churchill Compress Co., Memphis, Tenn., I. J. Calvern, Local Mgr., leased warehouses and cotton compress of Chattanooga Warehouse & Compress Co. in North Chattanooga, and of Lookout Compress & Warehouse Co. in Alton Park; contemplates expending \$100,000 for improvements to 2 structures and erection of brick warehouse; increase present storage capacity of 20,000 bales to 30,000 bales.

let contract to Chas. F. Mueller, 3474 Grace Ave., St. Louis, to erect dwelling at 3267 Harford Place; 30x30 ft.; brick; frame and terra cotta; slate and tile roof; tile and hardwood floors; hot-air or hot-water heat; electric lighting; cost \$5000; Edward P. Milhofer, Archt., 2906 Salena St., St. Louis. (Lately noted.)

Mo., St. Joseph.—Riverview Investment Co., 3801 King Hill Ave., let contract to E. R. Forum, 3725 Terrace Ave., St. Joseph, to erect 25 dwellings on Terrace Place; 1 story and basement; 26x40 ft.; cost \$2900 to \$3500 each.

N. C., Winston-Salem.—Banner Investment Co. let contract to G. E. Miller, Winston-Salem, to erect two 6-room bungalows in East Winston.

N. C., Winston-Salem.—Dr. Whitfield Cobb let contract to J. E. Kennerly, Winston-Salem, to erect residence on Ardmore Ave.

N. C., Winston-Salem.—H. H. Sherrell let contract to J. E. Kennerly, Winston-Salem, to erect 6-room bungalow.

Tex., Beaumont.—A. J. Le Blanc let contract to Davis & Posey, Beaumont, to erect 5-room residence; cost \$2950.

Tex., Beaumont.—C. P. Hooker let contract to Rutt Home Builders, 549 Keith Bldg., Beaumont, to erect 2-story residence at 2950 Liberty St.; cost \$4700; W. King, Archt., 549 Keith Bldg., Beaumont.

Tex., Beaumont.—E. A. Young let contract to Davis & Posey, Beaumont, to erect 5-room dwelling; cost \$2700.

Tex., Beaumont.—B. Morrison let contract to Davis & Posey, Beaumont, to erect residence; 5 rooms; cost \$2900.

Tex., San Antonio.—F. W. Mathien let contract to L. C. Skinner, San Antonio, to erect residence; cost \$3500.

W. Va., Wheeling.—G. A. Peters Co., R. & C. Bldg., Wheeling, has contract to erect 2-story residence; cost \$10,000; A. K. Staulecup, Archt., R. & C. Bldg., Wheeling.

## BUILDING CONTRACTS AWARDED

### Apartment-Houses.

Ga., Atlanta.—Dr. W. E. Lambright let contract to Mackie Construction Co., Atlanta, to erect apartment-house at Peachtree and West Peachtree Sts.; Georgia granite foundation to first floor; hollow tile and brick veneer above; limestone or terra-cotta trim; tile and marble lobby trimmed with hardwood; hardwood floors; birch doors; 48 bedrooms with built-in bath tubs; 45 kitchens; cafe in basement; Murphy disappearing beds; soundproof floors; cost \$150,000; De Ford Smith, Archt., Atlanta.

W. Va., Wheeling.—A. K. Staulecup, 410 R. & C. Bldg., Wheeling, is preparing plans for \$75,000 apartment-house; 3 stories and basement; 16 apartments; G. A. Peters Co., Contr., 410 R. & C. Bldg., Wheeling.

### Bank and Office.

D. C., Washington.—A. M. Goldstine let contract to erect addition to office and warehouse. (See Warehouses.)

Ky., Louisville.—Citizens' Union National Bank and Fidelity & Columbia Trust Co. let contract to erect 4-story annex to Inter-Southern Life Insurance Co.'s building at 5th and Jefferson Sts. for bank building; 100x200 ft.; 50,000 ft. ground floor and mezzanine floor space; foundation to permit erection of additional stories. (Lately noted.)

Ky., Louisville.—American Southern National Bank is having plans prepared by D. X. Murphy & Bro., Louisville, for alterations to bank; brick; 2 stories; A. H. Andrews, 107 S. Wabash Ave., Chicago, has contract for interior work.

W. Va., Huntington.—Huntington National Bank has plans by and let contract to Meanor & Handloser, R. & P. Bldg., Huntington, to alter banking-room; install tile floors, fixtures, hot-water heating, plumbing, wiring, etc.; cost \$20,000.

### Courthouses.

Tex., Paris.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, let contract to C. E. Goodhand, Chadron, Neb., to erect postoffice and courthouse. (See Government and State.)

### Dwellings.

Ark., Pine Bluff.—R. G. Chitwood let contract to erect \$4000 cottage.

Ark., Texarkana.—L. C. Adams let contract to J. E. Wellborn to erect six 4-room dwellings on plantation near Texarkana.

D. C., Washington.—L. M. Bartlett let contract to Guy S. Zepp, Southern Bldg., Washington, for residence at 3770 McKinley St.; 2 stories; 30x30 ft.; cost \$5000; Spelden & Spelden, Archts., 1403 New York Ave., Washington.

Ga., Valdosta.—D. F. Cason let contract to W. E. Booth, Valdosta, to erect residence; 2 stories; stucco; Lloyd Greer, Archt., Valdosta.

La., Shreveport.—C. M. Hunt let contract to E. W. Russell to erect residence; frame; cost \$3000.

La., Shreveport.—J. C. Simon let contract to J. H. Bellamy to erect residence; frame; 2 stories; cost \$6200.

Mo., St. Louis.—C. F. and Martha Mueller

### Government and State.

Miss., Gulfport.—Laboratory.—Bureau of Yards and Docks, Navy Dept., C. W. Parks, Chief, Washington, let contract to Chevally & Fursden, Gulfport, to erect toilet laboratory.

Tex., Galveston.—Navy Dept., Washington, let contract to Horton & Horton, Houston, Tex., to erect 10 buildings for naval air station on West Galveston Bay; construction tile, wood frame stuccoed; slate roll roof; concrete floors; no lighting plant; independent heating contract (not let; cost \$148,900; construction begins in March. Address contractors. (Lately noted.)

Tex., Paris.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, let contract to C. E. Goodhand, Chadron, Neb., to erect postoffice and courthouse; cost \$185,000. (Previously noted.)

Va., Portsmouth.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Act. Supvr. Archt., Washington, let contract at \$2740 to William Grohne Co., Joliet, Ill., for improvements to postoffice; construct booth in lobby, general delivery case, platform for mailing, remodel basement, electric fixtures.

### Hotels.

Md., Baltimore.—Allovizto & Sorlis let contract to R. B. Mason, 305 W. Madison St., Baltimore, to alter building at 437 N. Charles St. for hotel; 3 stories; about 25 rooms; cost \$10,000; Joseph Evans Sperry, Archt., Calvert Bldg., Baltimore.

### Miscellaneous.

D. C., Washington.—Cafe.—Harry F. Boryer,

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

1302 F St. N. W., has contract to alter building at 1343 Pennsylvania Ave. N. W. for cafe; cost \$7000; A. B. Mullitt & Co., Archts., Union Trust Bldg., Washington; contractor receiving bids on separate contracts.

### Schools.

Ark., Fouke.—School Board let contract to L. Quillan to erect school building; cost \$10,000. (Lately noted.)

D. C., Washington.—Masonic Hall Association let contract to George W. Acorn, 711 Thirteenth St., Washington, to repair building for stores and school. (See Stores.)

Ky., Cynthiana.—Board of Education let contract to McCormick Lumber Co., Cynthiana, to erect school building; brick; rubberoid roof; wood floors; cost \$65,000; hot-water and steam heat \$5000; C. C. and E. A. Weber, Archts., Cincinnati; construction begun. Address contractor. (Previously noted.)

Mo., St. Charles.—Board of Education let contract to E. Murphy, 431 McDonald St., St. Charles, to rebuild burned school; 2 stories and basement; cost \$11,000; Hohenschild & Torbett, Archts., Odd Fellows' Bldg., St. Louis; heating and plumbing contract to John Schumme; electric wiring, American Light & Power Co.; painting, H. Broeker; all of St. Charles; roofing to St. Louis office, Johns-Mansville Co. (Previously noted.)

Okl., Oklahoma City.—Board of Education, John H. Hope, Pres., J. G. Stearley, Clerk, let contract to Lisle Dunning Construction Co., Oklahoma City, to erect Wilson School building at 22d and Walker Sts.; 60x110 ft.; 2 stories and basement; reinforced concrete, brick and Algonite stone; tar and gravel roof; cost \$60,000; administration building at 3d and Walnut Sts.; 60x70 ft.; 2 stories and basement; reinforced concrete, brick and Algonite stone; tar and gravel roof; cost \$30,000; addition to Culbertson School on East 12th St.; 85x30 ft.; 2 stories and basement; reinforced concrete, brick and Bedford cut stone; tar and gravel roof; cost \$29,000; Layton & Smith, Archts., Majestic Bldg., Oklahoma City; let contract for plumbing and heating to Cook & McDonald, Oklahoma City. (Lately noted.)

### Stores.

D. C., Washington.—Masonic Hall Association let contract to George W. Acorn, 711 Thirteenth St., Washington, to repair building lately noted damaged by fire for stores and school; cost \$5000.

D. C., Washington.—Albert Carey, 13th and G Sts., let contract to S. H. Edmondston Co., 611 G St., Washington, to alter 3-story store building at 710 Thirteenth St.; cost \$2700.

D. C., Washington.—Loeb Company let contract to Meltzer McKay, Oxford Bldg., Washington, to alter and erect addition to store building at 714 Seventh St. N. W.; 3 stories and basement; cost \$8900; A. B. Fitzsimmons, Archt., Colorado Bldg., Washington; general contractor receiving bids on separate contracts.

Ga., Macon.—W. G. Solomon let contract to Mr. Arnold, Macon, to remodel building at 554 Cherry St. for store; remodel front; install department-store fixtures; Wm. Carl Nesbitt, Archt., Macon; to be occupied by Mathews-Johnson-Sanders Co. by March 15. (Lately noted.)

Md., Baltimore.—Mary F. Boyer let contract to L. Schoenlein & Sons, 2217 E. Baltimore St., Baltimore, to remodel and erect 2-story brick addition to building at Lancaster and Wolfe Sts.; cost \$4000.

Md., Sparrows Point.—Bethlehem Steel Corp. let contract to Irwin & Leighton, 126 N. 12th St., Philadelphia, to erect business building; 1 story; 38x100 ft.; brick; cost \$15,000; J. N. Stringley in charge. (Lately noted.)

Mo., Kansas City.—Miller Manufacturing Co. let contract to Gosling-McCallum Construction Co., 301 Brent Bldg., Kansas City, to remodel building at 812-14 Broadway; 5 stories and basement; cost \$10,000; heating and plumbing contract to Davidson Plumbing Co., 814 E. 12th St., and painting to J. E. Dusher, 2903 Main St., both of Kansas City; construction begun.

Tex., San Antonio.—Alamo Industries Co. let contract to H. N. Jones Construction Co., San Antonio, to remodel building and erect 2 con-

crete slabs, 976 Grayson St.; cost \$10,000; Lühr & Froidel, Archts., Chicago. (Lately noted.)

Tex., San Antonio.—J. G. Lentz, 312 W. Commerce St., let contract to Coleman & Jenkins, 210 Third St., San Antonio, to erect store building on Soledad St.; 30x56 ft.; reinforced concrete and brick; gravel roof; concrete and wood floors; cost \$9000; L. Harrington, Archt., Frost Bldg., San Antonio.

Tex., San Antonio.—Washmund & Etter let contract to J. De Puy, Hicks Bldg., San Antonio, to erect business building on East Commerce St.; tile; cost \$7000; Chas. Boelhaewe, Archt., Bedell Bldg., San Antonio. (Lately noted.)

Va., Graham.—John Warden let contract to Charley Anderson, Graham, to erect store building.

Va., Lynchburg.—W. T. Jones, 212 Tenth St., is reported to have contract to repair store building on Main St. damaged by fire; 4 stories; pine floors; slag roof; electric wiring, etc.; cost \$40,000; Heard & Chesterman, Archts., People's Bank Bldg., Lynchburg.

Va., Norfolk.—George H. Smith, Atlantic Tire & Rubber Co., let contract to J. E. Johnston Construction Co., Law Bldg., Norfolk, to erect building for auto sales; 2 stories; cost \$5000; construction begun.

W. Va., Parkersburg.—Sherman Dils let contract to Thomas Watterson, 801 Fourteenth St., Parkersburg, to erect auto sales and display building; 2 stories; 50x120 ft.; cost \$15,000.

### Warehouses.

D. C., Washington.—A. M. Goldstine let contract to J. T. Kenyon, 827 Fourteenth St., Washington, to erect addition to office and warehouse; cost \$3000; Spelden & Spelden, Archts., 1403 New York Ave., Washington.

Tex., San Antonio.—New York Buyers' Assn. let contract to J. De Puy, Hicks Bldg., San Antonio, to erect concrete warehouse; cost \$4000; L. Harrington Co., Archt., San Antonio. (Lately noted.)

Va., Portsmouth.—Portsmouth Star let contract to John W. Hodler, Portsmouth, to erect warehouse at 238 King St.; 46.8x24.5 ft.; cost \$3300.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

**Attrition Mill.**—See Oil Mill Equipment.

**Automobile Assembling Equipment, etc.**—Climber Motor Corp., 217 Boyle Bldg., Geo. Schoeneck, Engr., Little Rock, Ark.—Prices on equipment for manufacturing parts and assembling automobiles.

**Bank Equipment.**—W. E. Killian, Collinsville, Ala.—Prices on bank equipment, vault, safe, etc.

**Belting (Leather, Link).**—Fort Scott Sorghum Syrup Co., Fort Scott, Kan., Bertram Orde, Prest.-Mgr.—Prices on leather and link belting. (See Boilers, Engines, etc.)

**Blocks (Wood).**—See Building Materials.—W. A. Rayfield & Co.

**Blowers (Rotary).**—See Ice Machinery.

**Boiler.**—Appalachian Marble Co., Knoxville, Tenn.—Prices, f. o. b. Knoxville, on 150 H. P. boiler for 150-lb. pressure, with steel stack; second-hand; insurance inspection.

**Boiler.**—Hackley Morrison, 204 Moore Bldg., 16½ N. 9th St., Richmond, Va.—Dealers' prices on 125 or 150 H. P. portable return tubular boiler, or a Scotch boiler not less than 125 lbs. working pressure; first-class second-hand condition; for Southern delivery.

**Boilers.**—See Candy Machinery.

**Boiler.**—Appalachian Marble Co., Knox-

ville, Tenn.—Prices, f. o. b. Knoxville, on 150 H. P. boiler for 150 lbs. pressure, with steel stack; second-hand; insurance inspection.

**Boiler.**—Williamsburg Power Co., Williamsburg, Va.—Prices on 150 H. P. boiler to carry 100 lbs. steam. (See Generator.)

**Boiler (Steam).**—See Canning Machinery.

**Boilers, Engines, etc.**—Fort Scott Sorghum Syrup Co., Fort Scott, Kan., Bertram Orde, Prest.-Mgr.—Prices on boilers, engines, pumps, electric equipment, contractors' machinery, leather and link belting, piping, valves, etc.; for installation Pine Bluff, Ark.

**Brick Machinery.**—G. H. Eubank, Chrmn. Industrial Com., Port Arthur Board of Trade, Port Arthur, Tex.—Data on establishment of plant to manufacture sand-lime brick, and prices on machinery.

**Bridge Construction.**—Brooks County Commrs., Quitman, Ga.—Bids until Feb. 5 to construct concrete bridge and roadway; Garrett & Slack, Engrs., Montgomery, Ala.; plans obtainable office of Engrs.

**Bridge Construction.**—Upshur County Court, Ernest Phillips, Clerk, Buckhannon, W. Va.—Bids until March 3 to construct reinforced concrete arch bridge across Buckhannon River at Ours Mill; further informa-

tion obtainable from Clerk. (Supersedes recent notice.)

**Bridge Construction.**—Yell County Commrs., Danville, Ark.—Bids to construct 140-ft. steel bridge over Gafford Creek and 310-ft. steel bridge over Fourche River, both sites being near Bluffton; concrete abutments, piers and steel tubing; plans and specifications on file with County Clerk at Danville and I. R. Packard, Engr., Plainview, Ark.; bids received until Feb. 3.

**Broom Machinery and Material.**—J. L. Fowler, Mebane, N. C.—Prices on broom machinery and material.

**Bucket Bails and Bottoms.**—Joe Kaufman Co., 851 Magazine St., New Orleans, La.—Correspondence with manufacturers of polished nicked bails and patent bottoms for well buckets.

**Building Materials, etc.**—C. W. Fulwood, Jr., Archt., Moultrie, Ga.—Prices and samples from manufacturers.

**Building Materials.**—Evergreen Farms Co., Wm. R. Hay, V.-P., Laurel Hill, La.—Prices on house-building materials.

**Building Materials.**—W. A. Rayfield & Co., Birmingham, Ala.—Information on fireproofing, roofing, wood blocks, tiling, metal sash, fireproof doors, vaults and skylights for 6 buildings at Tuskegee, Ala., to cost \$200,000.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

**Building Materials.**—J. A. Smith, Cary, N. C.—Prices on cement, hardwood flooring, nails, glass, floor oil.

**Cabinets (Kitchen) Manufacture.**—Box 726, Montgomery, Ala.—Correspondence with manufacturers, view to placing order for manufacture of kitchen cabinet with special features.

**Candy Machinery.**—John E. Helfrich & Son, 414 Williams St., Savannah, Ga.—Prices on vacuum pans, pumps, boilers, candy machinery.

**Canning Machinery.**—W. F. Applegarth, Golden Hill, Md.—Prices on tomato-canning machinery, including 75 H. P. steam boiler and 25 H. P. engine.

**Cars (Logging).**—Machinery Exchange Co., Bienville and David Sts., 4201, New Orleans, La.—Dealers' prices on 60 to 75 skeleton logging cars, 40,000 capacity, with M. C. B. couplings.

**Castings.**—Georgia Ice & Supply Co., Lagrange, Ga.—Correspondence with manufacturers of semi-steel castings. (See Ice Machinery.)

**Cedar.**—Holden-Morgan Thread Miller, Ltd., 579 Richmond St. West, Toronto, Canada.—Prices on cedar. (See Lead Pencil Machinery and Materials.)

**Concrete Dam.**—City of Winston-Salem, N. C., Jos. Firth, Commr. Public Works.—Bids to construct concrete dam across Salem Creek; contain 8000 cu. yds. concrete; bids received Feb. 5; plans, specifications, etc., obtainable office of Commr.

**Concrete Block Machines.**—T. L. Candler, care of Robinson, Candler & Pruette, Wadesboro, N. C.—Prices on concrete brick and building-block machines.

**Contractors' Machinery.**—See Boilers, Engines, etc.

**Cooking Utensils.**—C. H. Stearns, Gen. Del., Jacksonville, Fla.—Prices, from manufacturers, on frying pans, skillets and cooking utensils; for trade to jobbers in Cuba, West Indies and Central America; commission basis.

**Crane Runway.**—A-46, care Manufacturers Record, Baltimore, Md.—Prices on crane runway; heavy type; about 150 ft. long; give specifications and weight.

**Cranes (Locomotive).**—A-46, care Manufacturers Record, Baltimore, Md.—Prices on locomotive cranes; two required, 15-ton and 25-ton capacity; give manufacture, age and general specifications; no dealers.

**Cranes (Locomotive; Electric Traveling).**—A-48, care Manufacturers Record, Baltimore, Md.—Prices on second-hand locomotive crane, 8-wheel, 15-ton, 40-ft. boom, complete, with clam-shell bucket; price must be within \$10,000; also 10-ton electric traveling crane. Give full details, condition and location, both cranes.

**Crusher.**—Southern Mineral Co., New Orleans, La.—Prices on No. 9 Gates crusher; style K preferred.

**Cutting and Welding Machine.**—Sydnor Pump & Well Co., 1310 E. Main St., Richmond, Va.—Prices on cutting and welding machine, medium size, new or second-hand, in first-class condition, suitable for automobile shop and general repair work.

**Derrick.**—Albert Breternitz, Archt. and Builder, 8 Fordyce Bldg., Clarksburg, W. Va.—Prices on derrick of 5 tons capacity, steel or wood, with 80-ft. boom and 70 or 80-ft. mast, with guy lines, cables, pulleys and other necessary equipment; electric operation (not included); also 2-ton magnet; derrick is for loading and unloading scrap iron.

**Ditching Machine.**—F. B. Cole, Newman, Ga.—Cuts and prices of power-ditching machine for land draining.

**Dogwood Logs.**—Shambow Shuttle Co., Woonsocket, R. I.—Prices on dogwood logs, 8 ft. long and at least 4 in. diam. at small end; desire carload lots, 10 cords to car.

**Dredging.**—C. A. Ginn, Royston, Ga.—Will let contract Feb. 8 for drainage of Beaverdam Creek; 160,000 yds. excavation; 1200 yds. rock dipper dredge; issue \$38,000 bonds.

**Dredging.**—U. S. Engr. Office, Customhouse, Norfolk, Va.—Bids until Feb. 21 for dredging in Inland Waterway from Norfolk to Beaufort Inlet, N. C.; information on application.

**Dredging, etc.**—Commrs. Prichard Drainage Dist., S. J. Houston, Prest., Tunica, Miss.—Bids until Feb. 17 to construct 540,000 cu. yds. floating dredge work and 25,000 cu. yds. small levee work; for information address L. W. Mashburn, Engr., Clarksdale, Miss.

**Drill (Radial).**—Battley Machinery Co., Rome, Ga.—Dealers' prices on good second-hand 5 or 6-ft.-swing radial drill.

**Electrical Equipment.**—See Boilers, Engines, etc.

**Electrical Equipment.**—See Ice Machinery.

**Electric Plants.**—Evergreen Farms Co., Wm. R. Hay, V.-P., Laurel Hill, La.—Data and prices on farmhouse lighting and electric-power plants.

**Electrical Equipment.**—Hackley Morrison, Box 1357, Richmond, Va.—Dealers' prices on 125 to 150 K. V. A. alternator, 3-phase, 60-cycle, 2200-volt, direct connected to high-speed automatic steam engine; second-hand, first-class condition; for Virginia delivery.

**Engine.**—See Canning Machinery.

**Engine (Gas).**—Big Elk Oil & Gas Co., R. L. Hall, Prest., Pawhuska, Okla.—Prices on 25 H. P. gas engine. (See Tubing, etc.)

**Engines (Gasoline; Portable; Kerosene).**—United Machine Works, 55 W. 3d St., New York.—Prices on 20 H. P. portable, Titan or Mogul kerosene engine, with clutch, etc.; also three 10 to 15 H. P. gasoline engines. (See Sawmills, etc.)

**Engines (Oil).**—See Mining Equipment.

**Felt Ribbon (or Wick).**—C. R. McCabe, 119 W. Elm St., Lima, Ohio.—Addresses of manufacturers with plants equipped to make small, endless ribbon of felt, which will absorb and retain moisture in manner of lamp wick.

**Engine (Steam).**—J. W. Marshall, West Point, Va.—Prices on new or good second-hand 100 H. P. steam engine.

**Engine (Steam).**—See Electrical Equipment.

**Fireproofing.**—See Building Materials.—W. A. Rayfield & Co.

**Glass and Porcelain Machinery.**—Georges Crassopoulos, 61 Wall St., New York.—Prices from manufacturers of glass and porcelain machinery; for use in The Levant.

**Flanging Machine.**—Tulsa Boiler & Sheet Iron Works, Box 1926, Tulsa, Okla.—Prices on flanging machine.

**Furnaces (Electric).**—C. I. Capps Co., 514 Catherine St., Jacksonville, Fla.—Prices on electric furnaces for steel and non-ferrous metals.

**Gas-generating Apparatus.**—Saint Paul Fire & Marine Insurance Co., F. G. Frazier, Mgr., Thompson Bldg., Hot Springs, Ark.—Data and prices on small artificial gas-generating outfit, about 2000 cu. ft. daily.

**Gravel and Sand-handling Machinery.**—Oscar Swineford, 617 Mutual Bldg., Richmond, Va.—Correspondence with handlers of gravel and sand machinery for getting sand from bank, washing and loading on cars for shipping.

**Generator (Electric).**—Williamsburg Power

Co., Williamsburg, Va.—Prices on 125 to 175 K. W. generator, 2300 volts, 60 cycle, 3 phase, A. C., direct connected to steam engine; good condition; 150 H. P. boiler to carry 100 lbs. steam.

**Graphite.**—Holden-Morgan Thread Miller, Ltd., 579 Richmond St. West, Toronto, Canada.—Prices on graphite. (See Lead Pencil Machinery and Materials.)

**Ice Machinery, etc.**—Georgia Ice & Supply Co., Lagrange, Ga.—Prices on ice machinery, electrical equipment, rotary blowers for air supply; also correspondence with foundries casting semi-steel castings.

**Jetty.**—U. S. Engr. Office, Dallas, Tex.—Bids until Feb. 25 for jetty work at Sabine Pass, Tex.; information on application.

**Lathe (Screw-cutting).**—Sydnor Pump & Well Co., 1310 E. Main St., Richmond, Va.—Prices on first-class screw-cutting lathe, with naper attachment; not less than about 12 to 15-ft. bed, with 12 to 15-in. swing.

**Lead Pencil Machinery and Materials.**—Holden-Morgan Thread Miller, Ltd., 579 Richmond St. West, Toronto, Canada.—Data on manufacture of lead pencils and prices on machinery; also prices on graphite and cedar.

**Levee Repair.**—Commrs. Drainage Dist., No. 1 of Matagorda County, A. J. Harty, Secy., Bay City, Tex.—Bids until Feb. 10 to repair Colorado River protection levee; 4000 cu. yds. earth removal; plans and specifications on file with E. N. Gustafson, Engr., Bay City.

**Huller (Disc).**—See Oil Mill Equipment.

**Lamps (Gasoline).**—Dixie Lighting Co., Wilson, N. C.—Addresses of manufacturers of gasoline hollow-wire pressure lamps.

**Lime-grinding and Burning Machinery.**—Chas. Wm. Mongold, Company 10, Wissa Barracks, Cape May, N. J.—Addresses of manufacturers of lime-grinding and burning machinery.

**Loading Machinery.**—See Gravel and Sand-handling Machinery.

**Locomotive.**—Tishomingo Gravel Co., Jackson, Miss.—Prices on 6-wheel switching locomotive, 40 to 50 tons.

**Machine-shop Equipment.**—Thornton Trolley Wheel Co., P. M. Scott, Prest.-Mgr., 208 16th St., Ashland, Ky.—Prices on small lathes, milling machines, grinders, brass crucible, hydraulic press.

**Machine Tools.**—See Automobile Assembling Equipment, etc.

**Machine Tools, etc.**—J. W. Hoopes, Denbigh, Va.—Dealers' prices (for purchase about March 1) on following machinery: punch and shear; single-head bolt cutter,  $\frac{3}{8}$  inch punch and shear; single head bolt cutter,  $\frac{3}{8}$  to  $1\frac{1}{4}$  bolts; 10-in. slotter; 24-in. drill press; 15-in. shaper; 28-in. lathe, about 30-ft. bed; two 18-in., two 16-in. and one each 36-in. and 48-in. lathes; 60-in. boring and turning mill; small boring and turning mill; 40-in. side planer; 18-in. toolroom lathe; Universal milling machine; pipe-cutting machine, cutting up to 4 in.; portable boring bars; portable valve seat facing machines; vises, taps and dies, reamers, drills, etc., for general repair shop; consider first-class second-hand or rebuilt machines.

**Magnet.**—See Derrick.—Albert Breternitz.

**Metal-working Machinery.**—American Truck Body Co., R. A. Fontaine, Secy.-Mgr., Martinsville, Va.—Prices on machinery for making metal truck bodies.

**Metal-working Machinery.**—Irrigation Engineering Co., Box 60, G. P. O., Adelaide, South Australia.—Prices on complete outfit for manufacture of cast-iron main cocks for following sizes:  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{4}$ ,  $1\frac{1}{2}$  and 2 in.; ordinary plug cocks, brass or iron plug; or quote separate plants; one for  $\frac{1}{2}$ -in. to 1-in.;

other for 1½-in. to 2-in., with tools or reamers; give full details with illustrations. No foundry equipment required.

**Mining Equipment.**—Big Five Zinc & Spar Co., W. L. Kennedy, Lohs, Ky., Mgr.—Prices on hoists, oil engines, pumps, washers.

**Mixer (Concrete).**—Bedford County Supvrs., R. A. Figgatt, 312 Terry Bldg., Roanoke, Va., Contr.—Prices on small concrete mixer.

**Motor (Electric).**—See Pump.—City of Carnegie, Okla.

**Motor (Electric).**—Lyerly Milling Co., J. S. Owings, Mgr., Lyerly, Ga.—Prices on 100 H. P. electric generator and motor; second-hand preferred.

**Oil Mill Equipment.**—G. R. Mueller Co., Brown-Marx Bldg., Birmingham, Ala.—Prices on 24-in. disc huller and 24-in. attrition mill; ball-bearing; Bauer Bros. or Sprout-Waldron preferred.

**Oil-refinery Equipment and Material.**—Greater Oklahoma Oil Corp., G. B. Shirrett, Prest., Billings, Okla.—Prices on new and used material for 2000-bbl. refinery; tanks, pumps and stills.

**Planer.**—A-47, care Manufacturers Record, Baltimore, Md.—Prices on plate-edge planer, electric driven, 24 ft. capacity, ¾-in. plate; state make and delivery.

**Pails, Tubs, etc. (Galvanized).**—Joe Kaufman Co., 851 Magazine St., New Orleans.—Prices on galvanized pails, tubs and other stamped galvanized ware, in car lots.

**Paving.**—City Commr., Pascagoula, Miss.—Bids until March 11 for street improvements, consisting of 6250 cu. yds. excavation, 26,750 sq. yds. pavement, curb, gutter and storm drain inlets. (See Sewer Construction, etc.)

**Paving.**—City of New Iberia, La., L. F. Villerman, Secy., Board of Trustees.—Bids until March 10 to construct 35,000 sq. yds. brick, wood block, sheet asphalt, concrete or bituminous pavement, complete; plans and specifications on file office of J. B. McCrary Co., Engr., Atlanta, Ga., and St. Martinville, La., and at office of Secy., Board of Trustees.

**Pipe, Casing, etc.**—Deeds Oil Co., 519 Flynn-Ames Bldg., Muskogee, Okla.—Prices on 2-in. line pipe; 6½-in., 17-lb. casing; 2-in. and 4-lb. tubing.

**Pipe-threading Machine.**—Sydnor Pump & Well Co., 1310 E. Main St., Richmond, Va.—Prices on 10 or 12-in. pipe-threading machine.

**Plumbing Supplies.**—H. Mandel Plumbing Supply Co., 1713 Carr St., St. Louis, Mo.—Addresses of manufacturers of plumbing supplies.

**Press (Hydraulic).**—See Foundry Equipment.

**Presses.**—See Rubber-working Machinery, etc.

**Pumps.**—See Candy Machinery.

**Road Construction.**—Jackson County Commrs., Ripley, W. Va.—To open bids March 4 on 2 mi. concrete roads; J. S. Chase, Engr.

**Pump.**—J. A. Smith, Cary, N. C.—Prices on automatic pumping equipment.

**Pumps.**—See Tubing, etc.

**Pumps.**—See Oil-refinery Equipment and Material.

**Pumps.**—Fort Scott Sorghum Syrup Co., Fort Scott, Kan., Bertram Orde, Prest.-Mgr. Prices on pumps. (See Boilers, Engines, etc.)

**Pumps (Sand).**—See Road Construction.—Lincoln County Commrs.

**Pump (Deep Well).**—City of Carnegie, Okla., Ray Benward, Mayor.—Prices on deep-well pump and electric motor.

**Punch and Riveter.**—Southern Metal Culvert Co., Salisbury, N. C.—Prices on Stake punch and riveter, new or second-hand; capacity to punch up to ½-in. holes through ½-in. iron and upsetting ½-in. rivets cold; prompt delivery.

**Punches.**—Tulsa Boiler & Sheet Iron Works, Box 1926, Tulsa, Okla.—Prices on punches.

**Rails.**—Geo. Yampolsky, Clarksburg, W. Va.—Wired quotations on 30 tons 30-lb. re-laying rails; first-class condition, with necessary bars; prompt shipment.

**Riveter.**—See Punch.

**Road Construction.**—Dublin Chamber of Commerce, N. G. Bartlett, Secy., Dublin, Ga. Plans, specifications and cost per yard on all kinds of road construction.

**Road Construction.**—Duval County Commrs., Jacksonville, Fla.—Bids until Feb. 10 to construct 1 mi. John Anderson Highway with brick on sand base; Ellis, Curtis & Kooker, Engrs., Jacksonville, Fla.

**Road Construction.**—Tulsa County Commrs., Lewis Cline, County Clerk, Tulsa, Okla.—Bids until Feb. 17 to grade and pave road; plans, specifications, etc., on file with County Engr. and County Clerk, Courthouse, Tulsa, and with Dept. of Highways, Capital Bldg., Oklahoma City.

**Road Construction.**—Lee County Commrs., R. G. Collier, Chrmn., Fort Myers, Fla.—Bids until Feb. 12 to grade remainder of Tamiami Trail through county; plans and specifications on file with Clerk of Circuit Court.

**Road Construction.**—Lincoln County Commrs., T. J. Bartrug, Engr., Hamlin, W. Va.—Bids open Feb. 20 to construct 104 mi. road grading and hard surfacing; also bridges; prices on sand pumps.

**Road Construction.**—Yell County Commrs., Danville, Ark.—Bids to construct 57 mi. of asphalt-macadam road and 3 mi. of graded road; include vitrified clay or iron pipe and concrete culverts, 430 ft. steel bridges, etc.; plans and specifications on file with County Clerk at Danville and I. R. Packard, Engr., Plainview, Ark.; bids received until Feb. 3.

**Road and Street Construction.**—Marion County Court, A. G. Martin, Clerk, Fairmont, W. Va.—Bids until March 6 to construct 6 mi. roads and streets in Grant Dist.; plans and specifications on file office of County Clerk.

**Rope, Cotton Line, etc.**—War Dept., General Supplies Division, Director of Purchase, Munitions Bldg., Potomac Park, Washington, Bids, for specified dates, on following: Branch No. 2, Section C, James Wilson, 3d, buyer, room 3807, Feb. 6, 1919: Cargo Manila rope net slings, 12 ft. square, 1500 pieces; single rope slings, 3½-in. Manila rope, 3½ fathoms on the bight, 12,500 pieces; 3½-in. cir. Manila rope, 250,000 ft.; 4½-in. cir. Manila rope, 250,000 ft.; 19 thread rattline line, 50 coils; savenalls 18x22-ft., 2½-in. cir. rope, 250 pieces; sail twine, 1000 lbs. Feb. 13, 1919: Line, cotton No. 6, 100 lbs.; line, cotton No. 12, 100 lbs.; line, cotton No. 24, 100 lbs.; line, cotton No. 30, 100 lbs.; line, cotton No. 72, 100 lbs.; line, cotton No. 96, 100 lbs.; line, cotton No. 138, 100 lbs.

**Rubber-working Machinery, etc.**—Yale Tire & Rubber Co., 4th and Main Sts., Yale, Okla., H. S. Blynt, Mgr.—Prices on rubber-working machinery, calendars, mills, presses, vulcanizers, tire-building outfit.

**Sand Pumping.**—Alton Beach Realty Co., Miami, Fla.—To let contract for pumping sand; at least 1,000,000 yds.; suction dredge work.

**Saws.**—See Sawmills, etc.

**Saws.**—Hackley Morrison, Box 1337, Richmond, Va.—Dealers' prices on combination or miter saw, second-hand, first-class condition; also No. 1 American variety saw.

**Sawmills, etc.**—United Machine Works, 55 W. 3d St., New York.—Prices on 2 sawmills,

medium size; mills with about 3 head blocks, 48 to 50-in. saw, sufficient track, etc.; also saw machine suitable for sawing railroad ties; 20 H. P. portable Titan or Mogul kerosene engine, with clutch, etc.; three 10 to 15 H. P. gasoline engines; give complete details, make, how long used and dealers' price, f. o. b. cars, point of shipment.

**Sewer Construction, etc.**—City Commr., Pascagoula, Miss.—Bids until March 11 to construct sanitary sewers, storm drainage and street improvements; sanitary sewer system will consist of vitrified pipe and branches, line structures and disposal work; storm sewers of vitrified pipe, manholes and catch basins; street improvements of 6250 cu. yds. excavation, 26,750 sq. yds. pavement, curb, gutter and storm drain inlets; bids invited on various types of pavement; specifications, etc., on file with F. H. Lewis, Mayor, City Hall, Pascagoula, and Xavier A. Kramer, Magnolia, Miss.

**Sewer Construction.**—City of Florence, Ala., Office R. E. Meade, City Engr.—Bids until Feb. 11 on about 8½ mi. sanitary sewers; 15, 12 and 8-in. vitrified pipe; blanks obtainable from City Clerk.

**Screens.**—J. W. Marshall, West Point, Va. Prices on 4 second-hand New Way Go screens.

**Shears.**—Tulsa Boiler & Sheet Iron Works, Box 1926, Tulsa, Okla.—Prices on shears.

**Stone Quarrying and Crushing.**—C. & P., care Manufacturers Record, Baltimore, Md.—To let contract for getting out broken stone; yearly contract of about 20,000 yds., increasing gradually up to over 150,000 yds.; contract to cover long period of time; 1-2-3-4-5 years; equipment required, 2 large grinding crushers like Gates; one or more mi. light rail, frogs, switches, etc.; 40 or 50 two-yard dump cars, or larger cars giving same capacity; dinky; steam or electric drills, power to operate; 4 or 6 derricks, hoister, miscellaneous tools and sufficient capital to get out second week's amount of rock; stone to be graded and classified.

**Tanks and Stills.**—See Oil-refinery Equipment and Material.

**Threading Machine (Bolt and Pipe).**—C. W. Hodges, Newbern, N. C.—Prices and specifications on machine for threading bolts and pipe.

**Tile (Drain).**—Rev. Dr. Robt. C. Jett, Virginia Episcopal School, Lynchburg, Va.—Correspondence with manufacturers of tiling for draining athletic field.

**Tractors (Caterpillar).**—L. H. Gray, Mgr., Southern Construction Co., Jasper, Tex.—Prices on 2 new or second-hand caterpillar tractors, and about twelve 2-yd. dump wagons, for use as trailers, hauling sand and gravel (long haul).

**Tractor (Gasoline).**—Evergreen Farms Co., Wm. R. Hay, V.-P., Laurel Hill, La.—Prices on gasoline tractor and equipment.

**Truck (Motor).**—Franklin County Commrs., W. P. Dodd, Clerk, Apalachicola, Fla.—Prices, from manufacturers, on motor truck, 3 to 5 tons capacity; wheels to have broad steel tires and automatic dump; for hauling oyster shells for road construction.

**Tubing, etc.**—Big Elk Oil & Gas Co., R. L. Hall, Prest., Pawhuska, Okla.—Prices on 5000 ft. 2-in. tubing; 25 H. P. gas engine; 6 pumps.

**Vaults.**—See Building Materials.—W. A. Rayfield & Co.

**Vault.**—See Bank Equipment.—W. E. Kilham.

**Vulcanizers.**—See Rubber-working Machinery, etc.

**Wagons (Dump).**—L. H. Gray, Mgr., Southern Construction Co., Jasper, Tex.—Prices

on about twelve 2-yd. dump wagons. (See Tractors.)

**Water-wheels.**—Lyerly Milling Co., J. S. Owings, Mgr., Lyerly, Ga.—Prices on water-wheels for 7-ft. head.

**Woodworking Machinery.**—Irrigation Engineering Co., Box 60, G. P. O., Adelaide, South Australia.—Prices on complete equipment machinery to manufacture wood split pulleys to 30-in. diam.

**Wire, Cable, Hardware, etc.**—Panama Canal, A. L. Flint, General Purchasing Officer, Washington.—Bids until Feb. 19 to furnish wire, cable, monotype metal, pumps, valves, lead bends, end mills, steel tapes, barrel bolts, lavatories closets, condulets, electrical switches, cable grips, silica wash, lime, asbestos, lumber, motorcycle tires, wooden handles, iron and wooden furniture, paper, pencils, croasties; information relating to circular (1255) obtainable this office or offices of Asst. Purchasing Agents, 24 State St., New York; 606 Common St., New Orleans, La.; Fort Mason, San Francisco, Cal.; also from United States Engr. offices in principal cities throughout United States.

**Woodworking Plants.**—See Cabinets.

**Yarn Mill (Woolen) Machinery.**—Waynesville Ice & Cold Storage Co., L. M. Killian, Mgr., Waynesville, N. C.—Data on establishment of woolen yarn factory and prices on new or good second-hand machinery.

## Railroad Construction

### Railways.

Ky., Paducah.—Illinois Central R. R., as reported, contemplates spending about \$2,000,000 for double track between Paducah and Fulton, Ky., and for improvements around Fulton. Nothing definite decided. F. L. Thompson is Ch. Engr. at Chicago, Ill.

Tex., Stephenville.—T. J. O'Donnell of Midland, Tex., president of the Midland & Northwestern Ry., and others are considering plans to build a railroad from Stephenville to De Leon, Desdemona, Ranger, Eastland, Cisco and Breckenridge, Tex., about 80 mi.

W. Va., Rainelle.—Greenbrier & Eastern R. R. Co., capital stock \$50,000, has been chartered to build a line from Rainelle to Richwood, W. Va., 25 or 30 mi. Incorporators: Angus W. MacDonald, V. L. Black, B. B. Brown, L. G. Summerfield and O. P. Fitzgerald, all of Charleston, W. Va.

## Financial News

### New Financial Corporations.

Ala., Collinsville.—Collinsville Savings Bank chartered, capital \$15,000; V. M. Brindley, Pres. and Cashier; H. P. McWhorter, V.-P. Business has begun.

Ala., Collinsville.—First National Bank, capital \$25,000, will begin business as soon as charter is received. Directors: W. E. Killian, Pres.; J. D. Jordan and J. W. Blackwell, V.-Ps.; W. A. Mitchell, W. L. Mitchell and I. J. Brown, Directors. (Lately noted.)

Fla., Crestview.—Bank of Crestview chartered, capital \$15,000; J. D. Cobb, Pres.; C. B. Ferdon, V.-P., Crestview; C. G. Reeves, Jr., Cashier, New Orleans. Business began in December. (Lately noted.)

Ga., Quitman.—People's Bank, capital \$50,000, surplus \$10,000, organized with W. A. Jones, Pres.; E. J. Pedrick, V.-P., and J. E. Nobles, Cashier; business began Jan. 25.

Ga., Young Harris.—Farmers' Bank of

Young Harris is reported organized to take over the business of the Bank of Young Harris; Zeb W. Curtis will be Cashier.

Ky., Louisville.—Consolidation of the National Bank of Commerce and the American Southern National Bank with the National Bank of Kentucky is agreed upon, the new name being National Bank of Kentucky of Louisville, beginning business as such on Feb. 3; capital \$2,500,000; surplus \$2,000,000. Temporary quarters at Fifth and Main Sts. Bank may use one of its three bank offices for permanent quarters. Oscar Fenley is Pres.

Md., Detour.—Establishment of a State bank at Detour is authorized; capital \$25,000. Incorporators: Chas. H. Miller, Peter B. Koons, Maurice J. Wilhide, Emory L. Warner, M. Floyd Wiley, Jesse P. Weybright and Milton O. Lawyer of Detour; Edwin H. Sharrets, George W. Koons and David B. Reifsnider of Keymar; Harry E. Shorb and Wm. J. Stoner of Keysville, Md.

Miss., North Carrollton.—People's Bank & Trust Co., North Carrollton, incptd.; capital \$25,000; G. T. Lee, Pres.; H. A. Lott, Cash. Business has begun.

S. C., Columbia.—Home Building & Loan Co. is organized with \$100,000 capital. Incorporators: J. Sumter Moore, Tom B. Pearce, Sewell K. Oliver and W. M. Shand.

N. C., Newport.—Bank of Newport, authorized capital \$50,000, is organized by C. A. Bell, J. A. Harrison and others.

S. C., Gaffney.—The American State Bank, capital \$50,000, organized with D. C. Ross, Pres.; B. L. Hames, V.-P.; T. B. Daniel, Cash.

Tex., Dallas.—American Life Reinsurance Co. is being organized with \$250,000 capital and \$125,000 surplus by local parties; A. C. Bigger will be Pres.

Tex., Deanville.—First State Bank, capital \$10,000, is being organized; C. C. Nelms, Caldwell, Tex., and H. L. Griffin, Deanville, are interested.

Tex., Dallas.—Republic Insurance Co. of Texas chartered, capital \$1,000,000. The new company is the result of the merger of the Austin, Commonwealth and International companies of Dallas.

Tex., Decatur.—First National Bank and the First State Bank are reported consolidated under the title of the First National.

Tex., Victoria.—Peoples' National Bank of Victoria chartered; capital \$50,000, surplus \$5000. E. E. Pickering, Pres.; John H. Clegg, V.-P.; Herman Fischer, Cash. Business is to begin about Feb. 15.

Va., Concord.—Local citizens are reported organizing a new bank. Address The Mayor.

W. Va., Williamstown.—A new bank is reported being organized with \$50,000 capital; B. F. Riggs and others are interested.

### New Securities.

Ala., Florence.—(Water, School).—City will on Feb. 18 offer for sale \$60,000 water and \$65,000 school 5 per cent. 20-year bonds. M. M. Striplin, Mayor.

Ala., Sheffield.—(School).—Sheffield School Dist., Colbert County, has sold \$25,000 of bonds. Address School Board.

Ark., Little Rock.—(Road).—Bill has been introduced in the Legislature by the Little Rock Board of Commerce authorizing the State of Arkansas to issue \$15,000,000 of bonds.

Ark., Little Rock.—(Warrants).—City Finance Com. received bids until 11 A. M. Feb. 5 for \$345,000 of 1-year warrants. Bids will also be received at the same time for a 30-day loan of \$345,000.

Ark., Marianna.—(Road and Bridge).—Legis-

lature is asked to authorize \$650,000 road and bridge bonds. Hugh Mixon, Marianna, may be able to give further information later.

Fla., Brooksville.—(School).—Election March 3 on \$40,000 of 6 per cent. \$1000 denomination building bonds. W. O. Lemasters is County Supt.

Fla., Bunnell.—(Road, Bridge).—Flagler County, J. C. Geiger, Clerk Circuit Court, will receive bids until 9 A. M. March 3 for \$99,500 of 6 per cent. \$500 denomination bonds Shell Bluff Special Road and Bridge Dist., maturing 1923 to 1946, inclusive.

Fla., Milton.—(Road).—\$80,000 of 6 per cent. 20-year district bonds of Santa Rosa County, voted in May, 1918, are now ready for sale. H. W. Thompson, Clerk Circuit Court, and J. F. Poore, Chrmn. County Commrs., in charge.

Fla., Mount Dora.—(Street, etc.).—An issue of improvement bonds is contemplated. Address The Mayor.

Ga., Atlanta.—(Water, Park, etc.).—City votes March 5 on \$1,000,000 of bonds as follows: \$500,000 waterworks; \$100,000 cyclorama and museum in Grant Park; \$100,000 motorizing fire department; \$300,000 for plant for generating electricity. Address The Mayor.

Ga., Franklin.—(School).—Franklin School Dist. on Jan. 4 voted \$150,000 of 6 per cent. 5-20-year \$250 denomination bonds. D. B. Whitaker, Chrmn. School Board; G. A. Adams, Secy.

Ga., Harlem.—(School).—City has for sale \$10,000 of 5 per cent. 20-year bonds. Address The Mayor.

Ga., Macon.—(Road, School, etc.).—Bibb County votes March 6 on \$1,500,000 of bonds. Of the amount \$700,000 will be for paved roads and bridges; \$40,000 courthouse and \$400,000 school. Address County Commrs.

Ga., Royston.—(Drainage).—Bids are asked Feb. 8 for \$38,000 of 6 per cent. Beaverdam Creek Drainage bonds. Address C. A. Ginn. Further particulars will be found in the Proposals Department.

Ga., Thomasville.—(School).—Coolidge School Dist., Thomas County, last November sold to Robinson-Humphrey Co., Atlanta, at par and interest, \$12,000 of 5 per cent. \$100 denomination school bonds, dated Jan. 1, 1918, and maturing 1923 to 1948, inclusive.

Ky., Berry.—(Light).—City on Jan. 29 awarded to the Harrison Deposit Bank of Cynthiaia \$5000 of 6 per cent. 10-year light bonds.

Ky., Ludlow.—(Street).—City Clerk, S. E. Wilson, asks bids until 8 P. M. Feb. 13 for \$3441.05 of 6 per cent. Deverhill Street Improvement bonds.

La., Baton Rouge.—(Road, Courthouse, Jail).—East Baton Rouge Parish Police Jury proposes to issue \$3,000,000 bonds for roads, courthouse and jail.

La., Gretna.—(Road).—Jefferson Parish Police Jury will call election to vote on \$125,000 of bonds.

Ky., Paducah.—(Street, Sewer, Water, Schools).—City commissioners contemplate issue of \$500,000 bonds. Address Mayor Frank N. Burns.

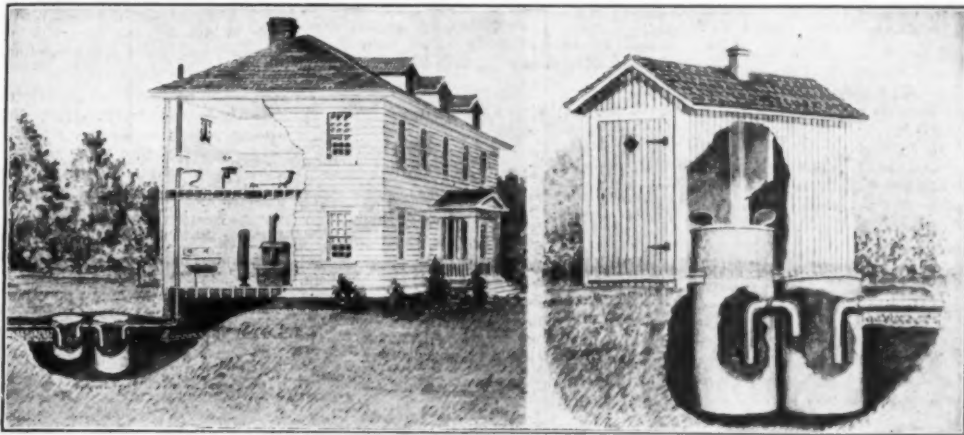
La., Jena.—(Road, Courthouse, Jail).—La Salle County plans to issue bonds for roads, courthouse and jail. Address Police Jury.

La., New Iberia.—(Road).—Bids will be received until 11 A. M. Feb. 27 for bonds of Iberia Parish as follows: Road Dist. No. 4, \$60,000; No. 6, \$35,000; No. 7, \$75,000. Not less than par and interest. A. A. Theriot is Pres., and Paul Bassin, Secy.-Treas. Police Jury.

La., Slidell.—(Street).—City has sold to W.

(Continued on Page 140)

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



Septic Tank System

Septic Closet System

## "SANISEP" Sewerage Disposal Systems

The "Sanisep" System offers the means of abolishing that most serious menace to health in the industrial village—unsanitary sewerage disposal.



The "Sanisep" system, consisting principally of two reinforced concrete tanks, consumes every particle of the material, entirely eliminating scavenger work; it is flyproof and odorless; unlike other systems on the market, it requires no chemicals.

Thousands of these systems are in use; the satisfaction they have given and *are* giving is an open book to all mill men who are anxious to protect the health of their operatives. *Full details are contained in our catalog. Write for a copy.*

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Industrial Village Equipped with "SANISEP" Septic Closets

L. Shayton & Co., Toledo, \$30,000 of 5 per cent. 10-year \$500 denomination bonds.

La., Thibodaux—(Drainage).—La Fourche Drainage Dist. No. 11, La Fourche Parish, has for sale \$10,000 of 5 per cent. drainage bonds. Address Board of Commrs.

Md., Brunswick—(Water).—City, on Jan. 31, sold at \$1356 premium to Robert Garrett & Sons, Baltimore, \$75,000 of an authorized issue of \$125,000 of 5 per cent. 30-year \$1000 denomination bonds, dated Jan. 1, 1919; Frank L. Spitzer is Clerk and Treas. It is understood that later on bids will be asked for another issue of \$25,000 or more.

Miss., Fayette—(Road).—Jefferson County, Jeff Truly, Chrmn.; O. S. Gillis, Clerk, asked bids until noon Feb. 2 for \$330,000 of 6 per cent. 1-20-year \$500 denomination bonds, dated Nov. 1, 1918.

Miss., Macon—(Outstanding Indebtedness).—City will turn over to Bank of Macon \$6000 of 6 per cent. bonds issued to take care of outstanding notes; Jas. G. Horton is Mayor.

Miss., Natchez—(Refunding).—City gives notice that it proposes to issue \$310,000 of bonds to refund a like amount of 6 per cents., dated May 1, 1889, issued to the New Orleans & Northwestern Railway Co.; C. C. Crothers is City Clerk.

Mo., Cedar City—(Drainage).—Cedar City Drainage Dist., Callaway County, has sold approximately \$17,500 of bonds.

Mo., Jefferson City—(Drainage).—\$63,000 drainage bonds previously reported sold to First National Bank of Jefferson City are 5½ per cents, 10-year average, \$500 denomination; dated Jan. 16; price 99½.

Mo., Kansas City—(Water-works Improvement).—City is planning to offer for sale \$625,000 of bonds, being half of the \$1,250,000 issue voted last spring. Address The Mayor.

Mo., St. Louis—(Highway).—Obion and Lake Counties (Tennessee) Free Bridges Drainage Dist. bonds, \$62,000 of 6 per cents, are being offered by the Mortgage Trust Co., St. Louis.

N. C., Asheville—(Road and Refunding).—Buncombe County is authorized by Legislature to issue \$1,000,000 of 6 per cent. 30-year \$1000 denomination bonds to refund debt and build roads; bonds will be issued from time to time. Address B. A. Patton.

N. C., Danbury—(Road).—Peter's Creek Township, Stokes County, has voted bonds. Address County Commrs.

N. C., Durham—(Memorial).—City and Durham County contemplate holding an election to vote on bonds for two memorial parks; one for the white soldiers and one for the colored soldiers. Address Mayor and County Commrs.

N. C., Kinston—(Road).—Lenoir County will apply to the Legislature for authority to issue \$2,000,000 of bonds; Chamber of Commerce, Heber H. McCoy, Pres., may be able to give information.

N. C., Kinston—(Road).—Lenoir County will apply to Legislature for authority to issue \$2,000,000 of bonds. Address County Commrs.

N. C., Morganton—(Road).—Lovelady Township, Burke County, J. R. Howard, Clerk of Board, will receive bids until noon Feb. 25 for \$30,000 of 5 per cent. 30-year \$1000 denomination bonds.

N. C., Oxford—(School).—City plans to call election to vote on \$50,000 of bonds. Address School Board.

N. C., Rocky Mount—(School).—City plans to call election to vote on \$30,000 of not exceeding 6 per cent. 50-year \$100 denomination bonds; T. T. Thorne is Mayor.

N. C., Shelby—(Hospital).—Cleveland County is planning bond issue of not exceeding \$50,000 for memorial hospital. Address County Commrs.

Okla., Atoka—(Bridge).—Atoka County on Feb. 3 offered \$98,500 of bonds. Address County Commrs.

Okla., Broken Bow—(Water-works).—City is planning to hold election to vote on bonds; nothing definite decided as yet; W. R. Carroll, City Justice.

Okla., Oklahoma City—(School).—City votes March 18 on \$650,000 of bonds; John H. Hope is Pres. Board of Education; J. G. Stearley, Clerk.

Okla., Oklahoma City—(Road).—Oklahoma County Commrs. are considering question of holding election to vote on \$1,500,000 of bonds. P. M. Holmes, County Commr.

Okla., Okmulgee—(Road).—Sealed bids will be received until noon Feb. 11 for \$536,000 of 5 per cent. serial bonds of Okmulgee County. Grace E. Morton is County Clerk. *Further particulars will be found in the Proposals Department.*

Okla., Okmulgee—(Council-house).—City has voted \$100,000 of bonds to purchase Creek council-house. Address The Mayor.

S. C., Greenwood—(Highways).—Bill is to be introduced in the Senate providing for the issuing of \$600,000 of Greenwood County bonds. Address County Commrs.

S. C., Sumter—(Light).—City voted last November to issue \$350,000 of bonds. Address The Mayor.

Tenn., Bristol—(School, Fire).—Ordinance is before City Commrs. to issue \$5000 school and \$13,000 fire-truck bonds.

Tenn., Chattanooga—(Auditorium).—City Commrs. have approved bill providing for election to vote on \$400,000 of auditorium bonds; Jesse M. Littleton, Mayor.

Tenn., Chattanooga—(School).—City Commrs. have voted to issue \$700,000 of bonds for school improvements. Of this amount \$273,000 of 4½ per cents, were authorized some time ago and the rate is to be changed to 5 per cent. The new issue of \$427,000 will also bear 5 per cent. It is stated the following firms have agreed to take the bonds: C. W. McNear & Co., Chicago; Well, Roth & Co., Cincinnati; Caldwell & Company, Nashville. It is further stated that these houses will also take the entire issue of \$25,000 sewer bonds of the last issue, provided the interest rate is increased from 4½ to 5 per cent.; Jesse M. Littleton, Mayor.

Tenn., Chattanooga—(Auditorium).—City is reported considering the question of issuing \$500,000 of bonds. Address J. M. Littleton, Mayor.

Tenn., Greenville—(City Hall, Sewer, Street).—City will issue bonds for city hall, sewers and streets. Guy Drew, City Clerk.

Tenn., Knoxville—(Refunding, etc.).—City is authorized to issue \$154,000 of bonds to cover expenses arising from extension of city limits, also to issue refunding bonds. Address The Mayor.

Tenn., Nashville—(Road).—Question of holding an election to vote on \$40,000,000 of State of Tennessee road-improvement bonds is reported being agitated. Address The Governor.

Tenn., Nashville—(Terminals, Warehouse).—Board of City Commrs. has an ordinance providing for an election to vote on \$200,000 of bonds for constructing river terminals and warehouse.

Tenn., Nashville—(Terminal, Viaduct).—City Commrs. propose issue of \$300,000 river ter-

минаl and warehouse and \$250,000 viaduct bonds.

Tex., Albany—(Road and Bridge).—\$100,000 bonds reported sold for work already planned. Address The Mayor.

Tex., Childress—(Road).—Childress County has sold at \$35,200 to Harold G. Wise & Co., Houston, \$35,000 of 5 per cent. 10-30-year bonds voted in Feb., 1918; denomination \$1000; dated April 1, 1918.

Tex., Dallas—(Reservoir).—City will vote in April. It is stated, on \$3,000,000 of reservoir bonds. Address The Mayor.

Tex., Denton—(Road).—Denton County plans to hold election sometime within the next 40 days to vote on bonds; date not decided; W. E. Durbin, County Auditor.

Tex., Freeport—(Highway).—Freeport Road Dist. No. 28, Brazoria County, will soon offer for sale (date not fixed by Court as yet) \$200,000 of 5½ per cent. 6-20-year serial \$1000 denomination bonds voted Sept., 1917. Address C. D. Jessup, County Judge, Angleton, Tex. (Lately noted.)

Tex., Galveston—(Seawall).—Galveston County Commrs. Court has adopted resolution providing for the issuing of \$100,000 of interest-bearing warrants for continuing extension of seawall.

Tex., Granbury—(Road).—Hood County is taking steps to call an election to vote on bonds. Address County Commrs.

Tex., McKinney—(Road).—Collin County districts will vote Feb. 22 on road bonds as follows: Farmersville Dist. No. 8, \$400,000; Wylie Dist. No. 15, \$300,000; Clearlake & Colleka Dist. No. 16, \$85,000; Blue Ridge Dist. No. 17, \$125,000; Pike Dist. No. 18, \$65,000; North Royce Dist. No. 19, \$50,000; Josephine Dist. No. 20, \$75,000; Nevada Dist. No. 21, \$30,000; Copeville Dist. No. 22, \$50,000; Laxon Dist. No. 23, \$60,000; Valdosta Dist. No. 24, \$60,000; Westminster Dist. No. 25, \$100,000; Weston Dist. No. 26, \$250,000; District No. 12, known as the Anna and Melissa Dist., has voted \$90,000, and Allen Dist. No. 13, \$50,000, both of which will soon be on the market; R. L. Moulden is County Judge.

Tex., Palestine—(Hospital).—Anderson County, it is stated, will soon vote on \$150,000 of county hospital memorial bonds. Address County Commrs.

Tex., Rusk—(School).—Cherokee County Common School Dist. No. 88 has had approved by Atty.-Gen. \$1200 of 5 per cent. bonds. Address County Commrs.

Tex., Vernon—(Road).—Wilbarger County has sold to the Harris Trust & Savings Bank of Chicago \$101,500 of 5 per cent. 1-20-year bonds.

Tex., Vernon—(Street).—Bids will be received until Feb. 15 for \$30,000 of 5 per cent. 40-year \$500 denomination bonds voted May 21, 1918, and dated August 1. Harry Mason is Mayor.

Tex., Weatherford—(Paving).—City will vote April 1 on \$60,000 of bonds. Address The Mayor.

Tex., Weatherford—(Road).—Parker County votes March 1 on \$400,000 of 5 per cent. 30-year bonds. Address County Commrs.

Tex., Wichita Falls—(Street).—City votes Feb. 15 on \$75,000 of 5 per cent. 10-40-year bonds. Address The Mayor.

Va., Portsmouth—(Water).—J. C. Mayer & Co. of Cincinnati are reported successful bidders for \$82,500 of 5 per cent. 30-year \$500 denomination bonds at par and interest, plus \$13,000 fire-truck bonds.

(Continued on Page 142)

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

# Barrett Specification Roofs



**Barrett Specification Roofs on Boston Elevated Railway Company's Buildings.**

Above: Surface Subway Station, Boston Elevated Ry. Co., Andrews Square, South Station.  
At left: Sub-power Station, Boston Elevated Ry., Somerville, Mass.  
At right: Transfer Station, Boston Elevated Ry., Egleston Square, Boston.

## The Barrett Specification provides real roof insurance—

**T**HE big Andrews Square Surface Station of the Boston Elevated Railway Company shown above is covered with a Barrett Specification Roof, *guaranteed for 20 years against all expense of maintenance or repairs.*

This protection is absolute, because it is covered by a Surety Bond issued by the U. S. Fidelity and Guaranty Company, one of the largest surety companies in America.

Both of the other buildings shown above are also covered with Barrett Specification Roofs. The Barrett Specification takes all of the gamble out of roofing a building. It affords four distinct advantages over the old methods of roof specification:

*First*—All contractors are bidding on an equal basis on a standard roof of highest quality.

*Second*—Our free inspection service (on roofs of 50 squares or more in cities of 25,000 or over, and in smaller towns where our Inspection Service is available) places on us the burden of seeing that you get just what you pay for, and that the materials are properly applied.

*Third*—Our free Guaranty Bond *absolutely protects you from roofing maintenance for at least 20 years.* Our only requirement is that the roofing contractor shall be approved by us, and that the Barrett Specification dated May 1, 1916, shall be strictly followed.

*Fourth*—You get a roof that will cost less per year of service than any other type and one that takes the base rate of insurance.

This explains why both the Transit Commission and the School Commission of Boston use Barrett Specification Roofs. They want the best and most economical roof covering it is possible to get, and, naturally, they want to be sure they get it.

Booklet explaining our 20-Year Guaranty and a copy of The Barrett Specification free on request. Address nearest office.

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The **Barrett** Company

Boston  
Detroit  
Nashville  
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Salt Lake City  
Youngstown  
Baltimore  
Seattle  
Toledo

THE BARRETT CO., Limited: Montreal Toronto Winnipeg Vancouver St. John, N. B. Halifax, N. S. Sydney, N. S.

Va., Petersburg—(Water, Sewer).—City plans to issue \$200,000 additional bonds for extension of water and sewer system. Address The Mayor.

W. Va., Martinsburg—(School).—City has not decided as yet when election will be held to vote on proposed issue of \$75,000 of bonds; W. A. Pitzer, Secy. School Board.

Vn., Richmond—(City Hall, Street).—Special dispatch to the Manufacturers Record says that a resolution providing for the sale of \$2,500,000 bonds was introduced and favorably acted upon by City Council, the money to be used in building a new city hall and for street improvements. Address The Mayor.

### Financial Notes.

City and County Bank, Moundsville, W. Va., increased capital from \$25,000 to \$50,000.

Dublin and Laurens Bank, Dublin, Ga., increased capital from \$75,000 to \$100,000.

National City Bank, Memphis, Tenn., will increase capital to \$400,000.

Fidelity Mortgage & Guarantee Co., Miami, Fla., has increased capital from \$250,000 to \$500,000.

The Union Trust Co. of Baltimore, Md., has purchased the Citizens' Bank of Govans, Md., which was in a receivership, the agreement approved by the court guaranteeing all deposits.

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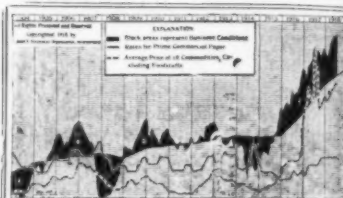
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